

621,328

47

Established 1894

Incorporated 1904

421,13

Amperes

Volts

## CATALOGUE No. 14

# ELECTRICAL

Bell	✦	✦	✦	Telephone
Gas Lighting	✦	✦	✦	Telegraph
Ignition	✦	✦	✦	Speaking Tube
Decorative Lamps	✦	✦	✦	Tools

# SUPPLIES

Frank H. Stewart Electric Co.

35 North Seventh Street

Philadelphia



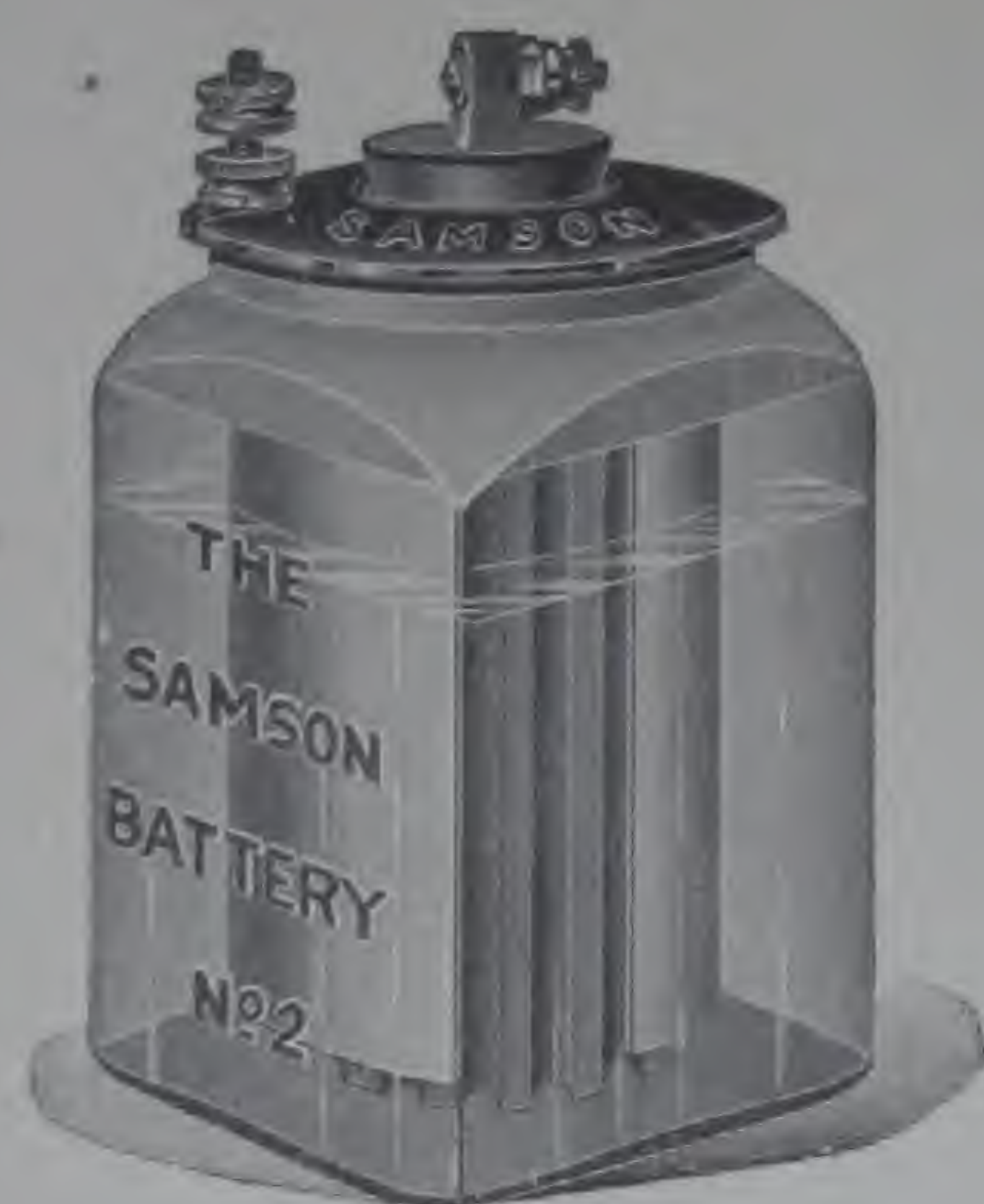








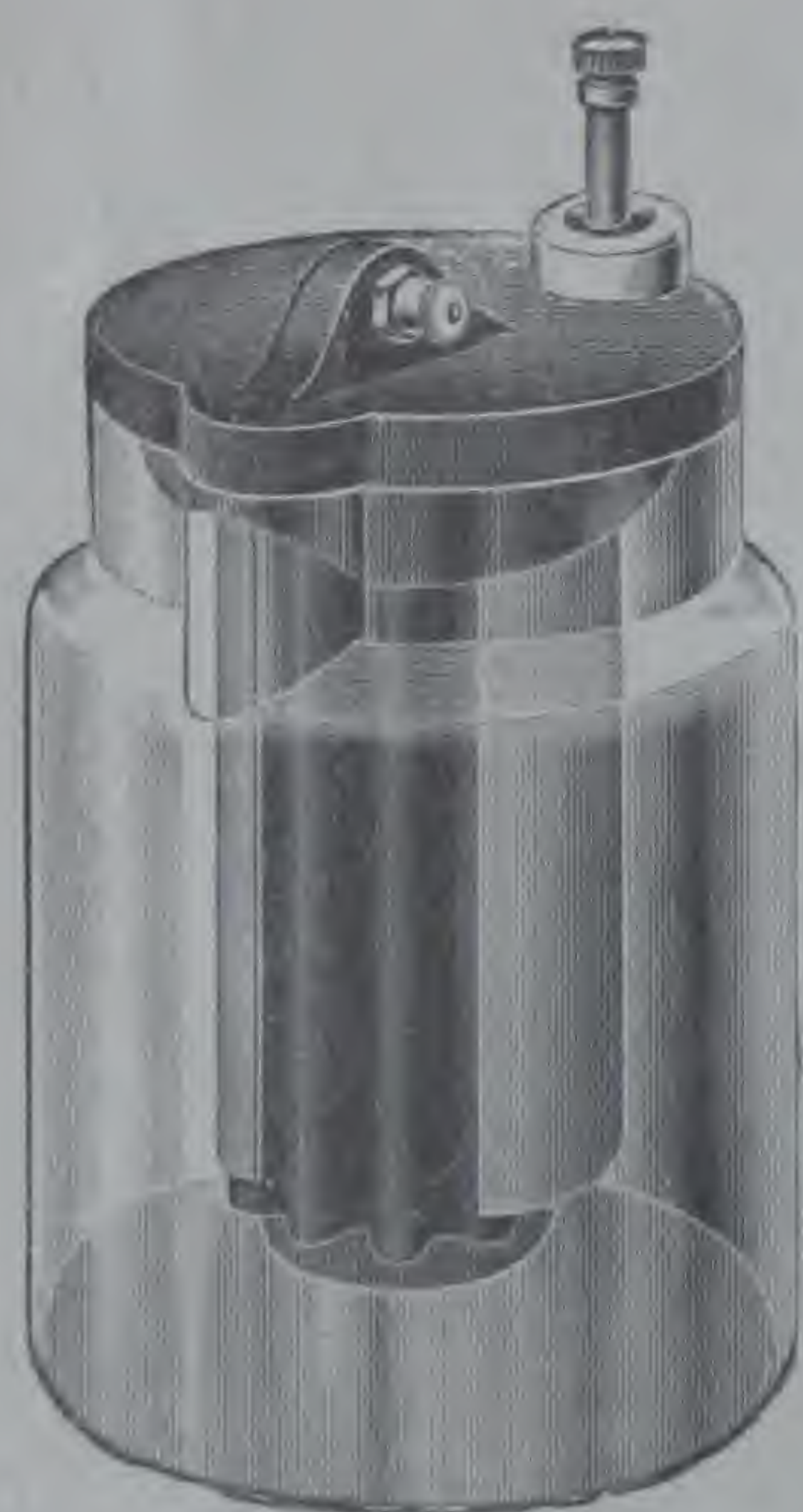
## Samson Batteries



No. 1.	Less than 6.	6 to 25.	25 to 50.	50 to 100.
Complete . . . . .	\$1.40	\$1.30	\$1.26	\$1.20
Carbon Vase . . . . .	.90	.86	.80	.75
Cylindrical Zinc . . . . .	.24	.22	.20	.20
Glass Jars . . . . .	.20	.18	.18	.18
Rubber Cover . . . . .	.12	.12	.12	.12

No. 2.	Less than 6.	6 to 25.	25 to 50.	50 to 100.
Complete . . . . .	\$1.60	\$1.50	\$1.46	\$1.40
Carbon Vase . . . . .	1.10	1.06	1.00	.95
Cylindrical Zinc . . . . .	.26	.24	.22	.22
Glass Jar . . . . .	.20	.20	.18	.18
Rubber Cover . . . . .	.12	.12	.12	.12

No. 1 measures  $7\frac{1}{8}$ " x 4" x 4"  
 " 2 " 8" x  $4\frac{1}{2}$ " x  $4\frac{1}{2}$ "



## No. 1 Eastern Porous Cup Carbon Batteries

No. 1.	Less than 25.	25 to 50.	50 to 100.	100.
Complete . . . . .	\$1.10	\$1.00	\$0.95	\$0.90
Porous Cup Carbons . . . . .	.80	.75	.70	.65
Glass Jars . . . . .	.16	.14	.12	.11
Cylindrical Zinc . . . . .	.22	.20	.19	.18

## Gonda Batteries



Complete, less than 12 . . . . .				\$1.50
" 12 to 50 . . . . .				1.35
" 50 " 100 . . . . .				1.25
Gondas, per pair . . . . .				.60
Rubber Bands, per pair . . . . .				.12
Carbons, each . . . . .				.24
Jars " . . . . .				.30
Covers " . . . . .				.18
Zincs $\frac{3}{8}$ inch, each . . . . .	\$0.14			Per 100—\$12.00
" $\frac{1}{2}$ " " . . . . .	.22			" 100— 19.00





Crowfoot Battery

## Crowfoot or Gravity Batteries

	5" x 7"	6" x 8"
Less than 25, without Blue Stone . . . . .	\$1.10	\$1.20
25 and over " " " . . . . .	.90	1.10

## Crowfoot Zincs

	5" x 7"	6" x 8"
Less than 25 . . . . .	\$0.50	\$0.64
25 and over . . . . .	.44	.56



Crowfoot Zinc

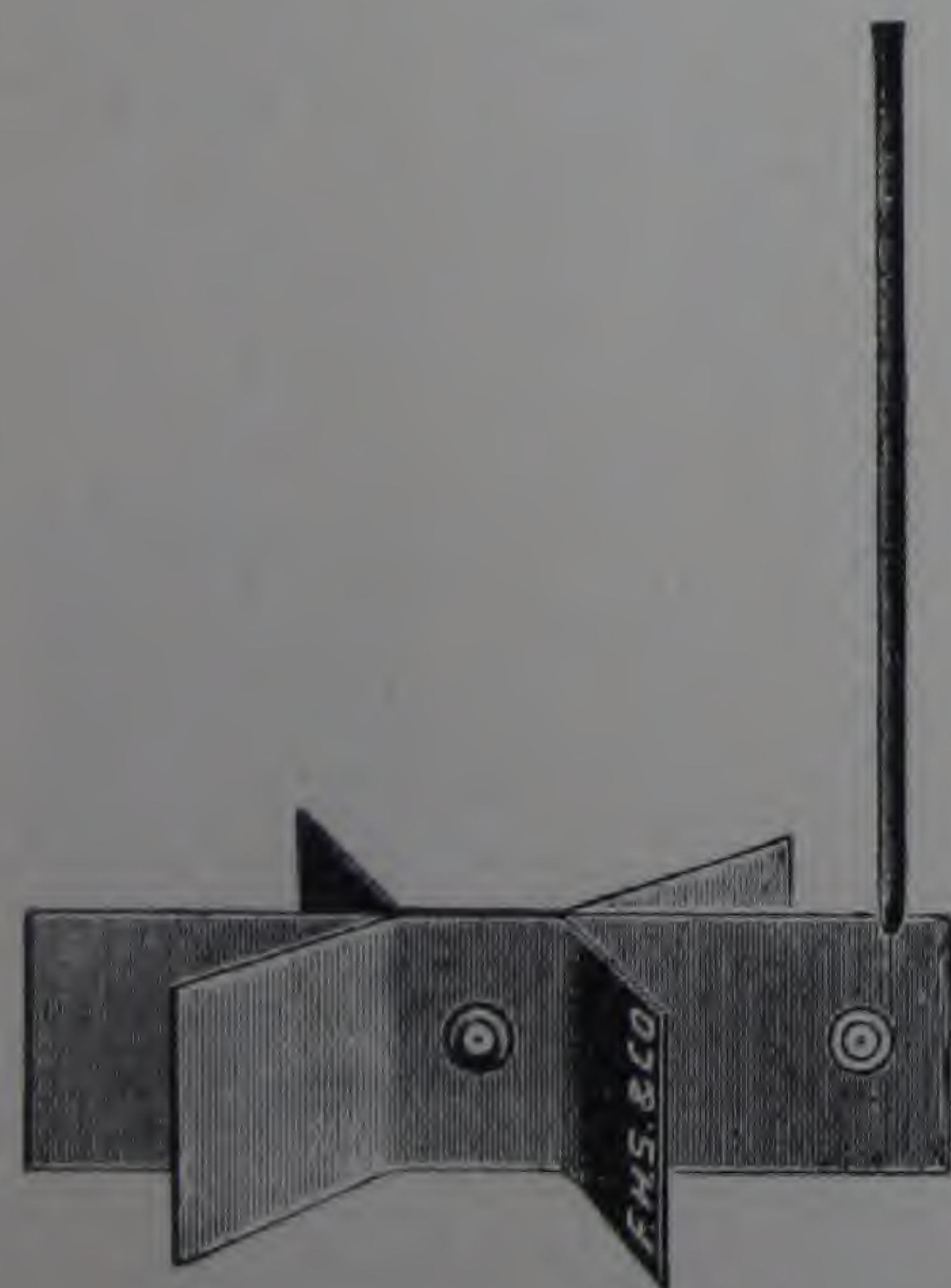
## Battery Coppers

	Each.
Less than 25 . . . . .	\$0.12
25 and over . . . . .	.10

The same size copper is used in both batteries.

## Crowfoot Battery Jars

	5" x 7"	6" x 8"
Less than 25 . . . . .	\$0.44	\$0.44
25 and over . . . . .	.40	.40



Battery Copper

## Blue Stone or Sulphate of Copper

	Per lb.
Less than 25 lbs. . . . .	\$0.20
25 lbs. to 1 bbl. . . . .	.16
Barrel lots . . . . .	.15



## Edison Primary Batteries

## Type "BB" Cell

Slot Machine and Small Gas Engine Model

Capacity, 100 Ampere-Hours

Price, Complete Cell, with Porcelain Jar, \$1.50

Price of Renewal Parts  
(Capacity, One Charge)

1 Copper Oxide Plate	\$0.24
1 Zinc Plate	.28
1 Can Caustic Soda	.15
Bottle Special Battery Oil	.05

Complete Renewal . . . \$0.72  
 Size, over all,  $4\frac{1}{2} \times 7\frac{3}{4}$  in. ; Jar only,  
 $4\frac{1}{4} \times 7$  in.

## Type "RR" Cell

Gas Engine and R. R. Crossing Signal Model  
Capacity, 300 Ampere-Hours

Price, Complete Cell, with Porcelain Jar, \$2.90

## Price of Renewal Parts

(Capacity One Charge)

2 Zinc Plates, 25c. each	\$0.50
1 Copper Oxide Plate	.55
1 Can Caustic Soda	.28
Bottle Special Battery	
Oil	.07

Complete Renewal . . . \$1.40

Size, over all,  $7\frac{1}{4} \times 10\frac{1}{2}$  in. ;  
 Jar only,  $7\frac{1}{8} \times 8\frac{3}{4}$  in.



## Type "Q" Cell

Small Fan Motor and Gas Engine Model

Capacity, 150 Ampere-Hours

Price, Complete Cell, with Porcelain Jar, \$2.20

Price of Renewal Parts  
(Capacity, One Charge)

2 Zinc Plates, 14c. each	\$0.28
1 Copper Oxide Plate	.31
1 Can Caustic Soda	.17
Bottle Special Battery Oil	.06

Complete Renewal . . . \$0.82

Size, over all,  $5\frac{3}{4} \times 8\frac{3}{4}$  in. ; Jar  
 only,  $5\frac{1}{2} \times 7\frac{1}{4}$  in.

## Type "SS" Cell

Motor and Railroad Semaphore Signal Model  
Capacity, 300 Ampere-Hours

Price, Complete Cell, with Porcelain Jar, \$3.25

## Price of Renewal Parts

(Capacity One Charge)

2 Zinc Plates, 25c. each	\$0.50
2 Copper Oxide Plates, 31c. each	.62
1 Can Caustic Soda	.28
Bottle Special Battery	
Oil	.06

Complete Renewal . . . \$1.46

Size, over all,  $6\frac{3}{4} \times 12\frac{3}{4}$  in. ;  
 Jar only,  $6\frac{1}{2} \times 10\frac{3}{4}$  in.



## Type "S" Cell

Phonograph, Fan Motor, Sewing Machine Model

Capacity, 300 Ampere-Hours

Price, Complete Cell, with Porcelain Jar, \$3.00

Price of Renewal Parts  
(Capacity, One Charge)

2 Zinc Plates, 25c. each	\$0.50
2 Copper Oxide Plates, 31c. each	.62
1 Can Caustic Soda	.28
Bottle Special Battery Oil	.06

Complete Renewal . . . \$1.46

Size, over all,  $5\frac{3}{4} \times 13$  in. ; Jar  
 only,  $5\frac{1}{2} \times 11$  in.

## Type "Z" Cell

Small Launch and Traction Gas Engine Model  
Liquid-Tight Steel Enameled Jar  
Capacity, 100 Ampere-Hours

Price, Complete Cell . . . \$2.00

Price of Renewal Parts  
(Capacity, One Charge)

1 Copper Oxide Plate	\$0.24
1 Zinc Plate	.28
1 Can Caustic Soda	.15
Bottle Special Battery Oil	.05

Complete Renewal . . . \$0.72

Size, over all,  $4\frac{1}{2} \times 6\frac{3}{4}$  in. ; Jar only,  
 $4\frac{1}{4} \times 6$  in.



The Type BB, rather than Type Z, should be used on launches plying in salt water, as the enameled steel jars are liable to chip and corrode on account of atmospheric conditions.



## Edison Primary Batteries

## Type "V" Cell

Launch and Traction Gas Engine Model  
Capacity, 150 Ampere-Hours

Price, Complete Cell, with Liquid Tight  
Steel Enameled Jar . . . . . \$2.50  
Price, Complete Cell, with Porcelain Jar, 2.20

Price of Renewal Parts  
(Capacity, One Charge)

1 Copper Oxide Plate . . . \$0.31  
1 Zinc Plate . . . . . .35  
1 Can Caustic Soda . . . .17  
Bottle Special Battery Oil . .06

Complete Renewal . . . \$0.89

Size, over all,  $5\frac{3}{4} \times 8$  in. ; Jar only,  
5 x 7 in.



For launches running in salt water, it is advisable to use Type "V" cells with porcelain jars, as the action of the salt water causes the enamel on the steel jars to chip, and corrodes the steel shell.

## Type "AA" Cell

Launch and Traction Gas Engine Model  
Liquid-Tight Steel Enameled Jar  
Capacity, 300 Ampere-Hours

Price, Complete Cell, with Liquid-Tight  
Steel Enameled Jar . . . . . \$3.50  
Price, Complete Cell, with Porcelain Jar, 2.90

Price of Renewal Parts  
(Capacity One Charge)

1 Copper Oxide Plate . . \$0.55  
1 Zinc Plate . . . . . .55  
1 Can Caustic Soda . . . .28  
Bottle Special Battery Oil .07

Complete Renewal . . . \$1.45

Size, over all,  $7\frac{1}{4} \times 10$  in. ; Jar  
only,  $6\frac{1}{2} \times 8\frac{1}{2}$  in.



For launches running in salt water, it is advisable to use Type "AA" cells with porcelain jars, as the action of salt water causes the enamel on the steel jars to chip, and corrodes the steel shell.

## Type "W" Cell

Cautery and Dental Motor Model  
Capacity, 600 Ampere-Hours

Price, Complete Cell, with Porcelain Jar, \$4.85

Price of Renewal Parts

(Capacity, One Charge)

2 Zinc Plates, 41c.  
each . . . . . \$0.82  
2 Copper Oxide Plates,  
55c. each . . . . . 1.10  
Can Caustic Soda . . . .52  
Bottle Special Battery  
Oil . . . . . .08

Complete Renewal \$2.52

Size, over all,  $7\frac{1}{2} \times 15$  in. ;  
Jar only,  $7\frac{1}{2} \times 13\frac{1}{2}$  in.



## How to make "BB," "V" and "AA" Cells with Porcelain Jar Liquid-Tight

In cases where our type BB, V and AA cells are required for use in connection with gasoline engines used on automobiles, launches, etc., or on portable work of any kind where the solution is likely to be spilled from the jar, these types of cells can be made liquid-tight very effectively by putting a piece of insulating tape, about three-fourths of an inch wide, around the top of the porcelain jar so that it laps over the edge of the cover. Once around is enough. This insulating tape will readily adhere to the porcelain.



## Prices of Permanent Parts of Edison Primary Batteries

	EACH
Porcelain Jars, Type "BB"	\$0.35
" " " " "Q" and "V"	.40
" " " " "R," "RR" and "AA"	.50
" " " " "S"	.65
" " " " "SS"	.90
" " " " "W"	1.65
Steel Enameled Jar, Type "AA"	1.00
" " " " "V"	.80
" " " " "Z"	.60
Porcelain Covers, Type "Z" and "BB"	.25
" " " " "Q," "S," "V" and "W"	.35
" " " " "R" and "SS"	.40
" " " " "AA" and "RR"	.45
Copper Frames with Bolts, Type "Z" and "BB"	.30
" " " " "Q" and "V"	.35
" " " " "R," "RR" and "AA"	.40

	EACH
Copper Frames with Bolts, Type "S" and "SS"	.45
" " " " "W"	.45
Copper Bolts and Nuts only, all sizes	.10
Hard Rubber Insulators for Copper Frames, all sizes	.05
Long Brass Bolts and Nuts for Zincs, all sizes	.10
Wire Connections, all sizes	.05
Flat Copper Strips, Straight and Twisted, "W"	.10
Soft Rubber Gasket Rings, "V" and "Z"	.12
" " " " "AA"	.15
" " " " "Air Vent Nipples, "V," "Z" and "AA"	.03
Baby Knife Switches	.25
Thumb Nuts, all sizes	.05
High Resistance Shunts for 3, 6 and 8 Cells	1.00
Special Hydrometers for Testing Edison Primary Batteries	2.50
Leather Washers for Copper Frames, per doz.	.10



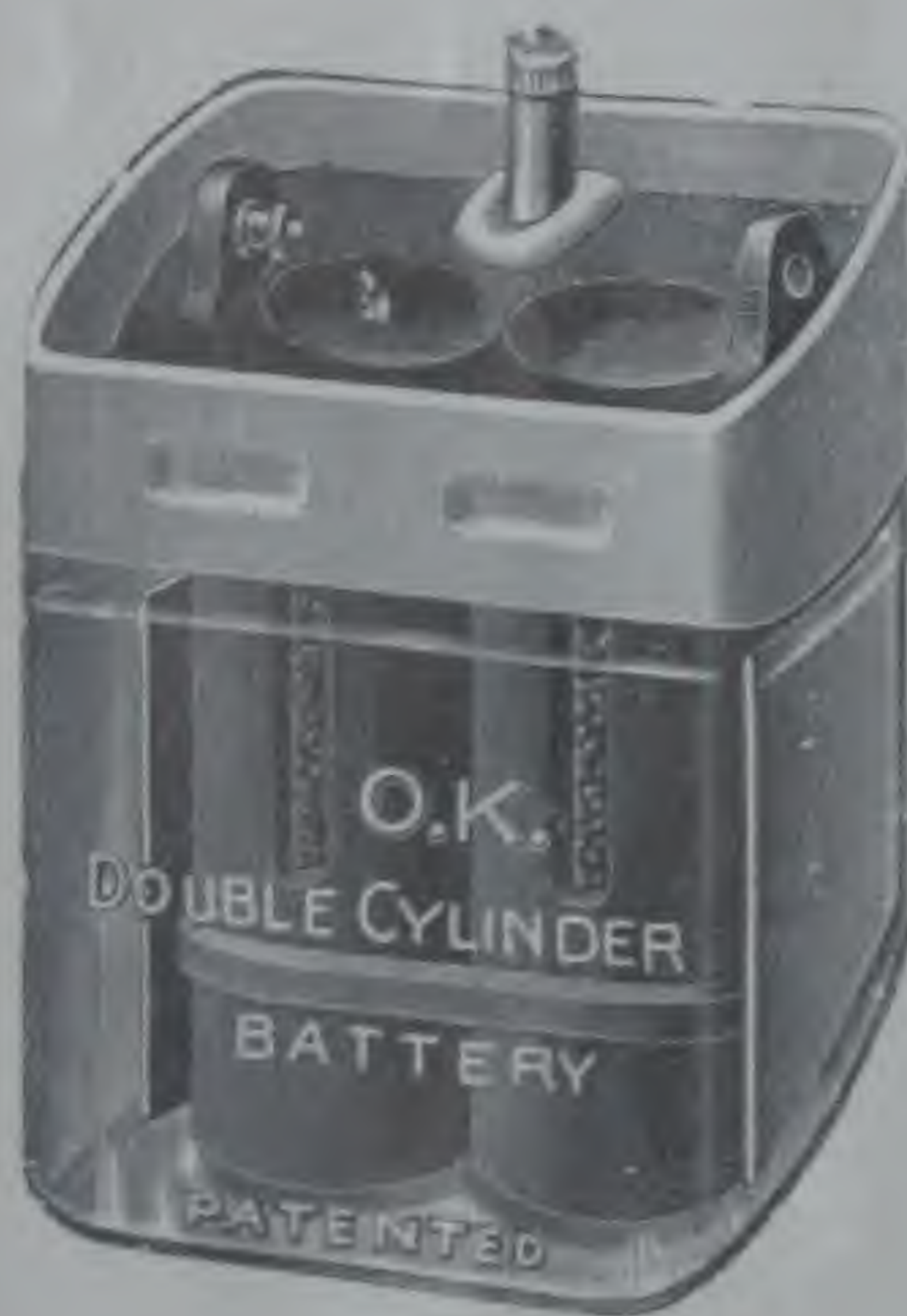


### Pullen Primary Batteries

	No. 4.	Type H.	No. 5.
Complete Cell . . . . .	\$1.50	\$2.00	\$2.25
Charged Porous Cups . . . . .	.75	.90	1.00
Zincs (needed every third charge) . . . . .	.25	.35	.40
Excitant . . . . .	.30	.35	.45
Jar . . . . .	.20	.30	.35

#### Data

Capacity in Watt hours . . . . .	80	120	160
Normal Ampere discharge rate . . . . .	1	1 1/2	1 1/4
Maximum Ampere delivery on short circuit . . . . .	12	20	15
Dimensions over all . . . . .	4 1/4" x 6 1/2", 3 7/8" x 8 3/4", 5" x 8"		



### O. K. Double Cylinder, Carbon Battery

Complete . . . . .	\$1.50
Carbon . . . . .	.75
Zinc . . . . .	.40
Jar . . . . .	.35
Sal Ammoniac (per charge) . . . . .	.16
Bushing . . . . .	.06

### Adams Secondary Generator

#### A Substitute for Primary Batteries, where Alternating can be used

The Adams Secondary Generator is designed to be connected to the 110 volt or secondary side of alternating currents. The installation is a simple matter, requiring little work. The bells, however, require slight adjustment, so that they will operate on alternating currents of either frequency.

While the generator will operate on the secondary of any alternating current, it is necessary that the generators have the same alternations as the electric current used. Bells must be wired in multiple and adjusted according to the number of bells it is intended to use, and the different voltages of the machine applied according to the resistance of the circuit.

Numbers 1 and 2 embody an automatic regulation feature so arranged that they may be permanently short circuited on the secondary side, without the slightest danger of burning out. Numbers 12, 19 and 20, however, are dependent upon fuse protection in the primary. The proper size of fuse to be used being indicated upon the connecting diagram.

For bells, gas lighting and most annunciators the No. 1 instrument will be found of ample capacity. For door openers and heavy hotel annunciators No. 2 is usually preferable, especially when the line current supplied is 133 cycle.



PRIMARY.			SECONDARY.		LIST.
No.	Voltage.	Frequency Cycles.	Voltage.	Short Circuit Amps.	
1,	100-125	60	6...12...18	2.5=1.5=1	\$12.50
1,	100-125	133	8...16...24	1.9=1.1=73	12.50
2,	100-125	60	8...16...24	4.2=2.5=1.5	15.00
2,	100-125	133	11...22...33	3.1=1.67=1.13	15.00
12,	100-125	60	8...16...24	10.5=10=9	18.00
12,	100-125	133	11...22...33	9=10.1=10.25	18.00
19,	100-125	60	10...20...30	115=85	30.00
20,	100-125	60	5...10...15	100=61=47	40.00

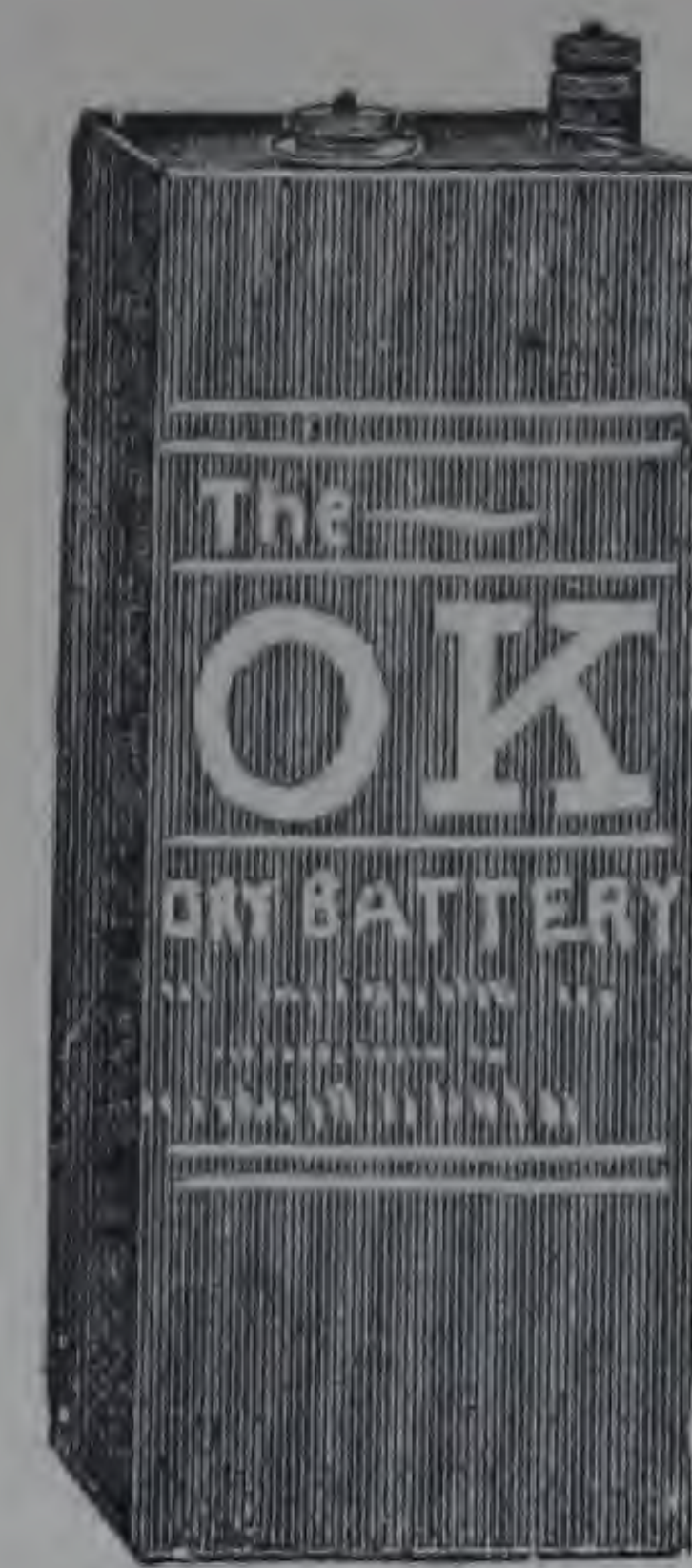


## Dry Batteries



Mesco

Less than 12	\$0.30
12 and less than 50	.27
50 " " " bbl.	.26
Bbl. lots	.23



O. K. Rectangular

No. 1 Size 1	$x 1\frac{9}{16}$	$x 3\frac{1}{4}$ "	\$0.40
" 2 "	$1\frac{1}{4}$	$x 1\frac{3}{4}$	.45
" 3 "	$1\frac{1}{2}$	$x 2$	.50
" 4 "	$1\frac{3}{4}$	$x 1\frac{1}{4}$	.55
" 5 "	2	$x 2\frac{1}{2}$	.70
" 6 "	$2\frac{1}{4}$	$x 2\frac{3}{4}$	.95
Type X "	$3\frac{1}{8}$	$x 4\frac{1}{8}$	1.60
" Y "	$4\frac{1}{4}$	$x 4\frac{1}{2}$	2.10
" Z "	$2\frac{11}{16}$	$x 5\frac{11}{16}$	2.20

O. K. Square

No. 60 Size	$2\frac{7}{16}$	$x 2\frac{7}{16}$	$x 6\frac{1}{2}$ "	\$0.80
" 70 "	$2\frac{15}{16}$	$x 2\frac{15}{16}$	$x 7\frac{1}{2}$ "	1.20



Eastern

Less than 12	\$0.50
12 or less than 50	.38
50 " " " 125	.35
125 " " " 250	.33
250 " " " 500	.32
500 or more	.31



Peerless

Less than 12	\$0.30
12 to 50	.27
50 to 1 bbl.	.26
1 bbl. lots	.23



## Columbia Dry Batteries



No. 6 Regular  
Size,  $2\frac{1}{2} \times 6''$

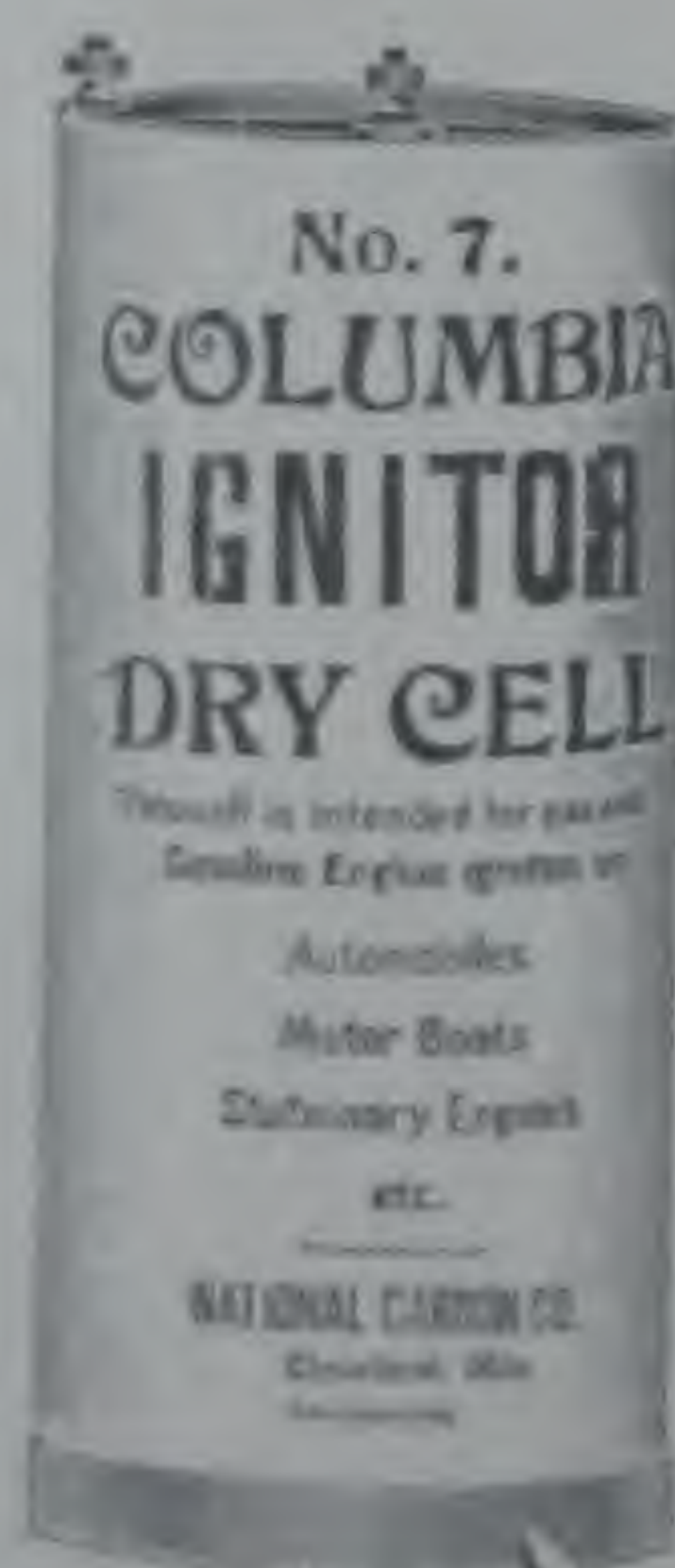


No. 6 Ignitor  
Size,  $2\frac{1}{2} \times 6''$

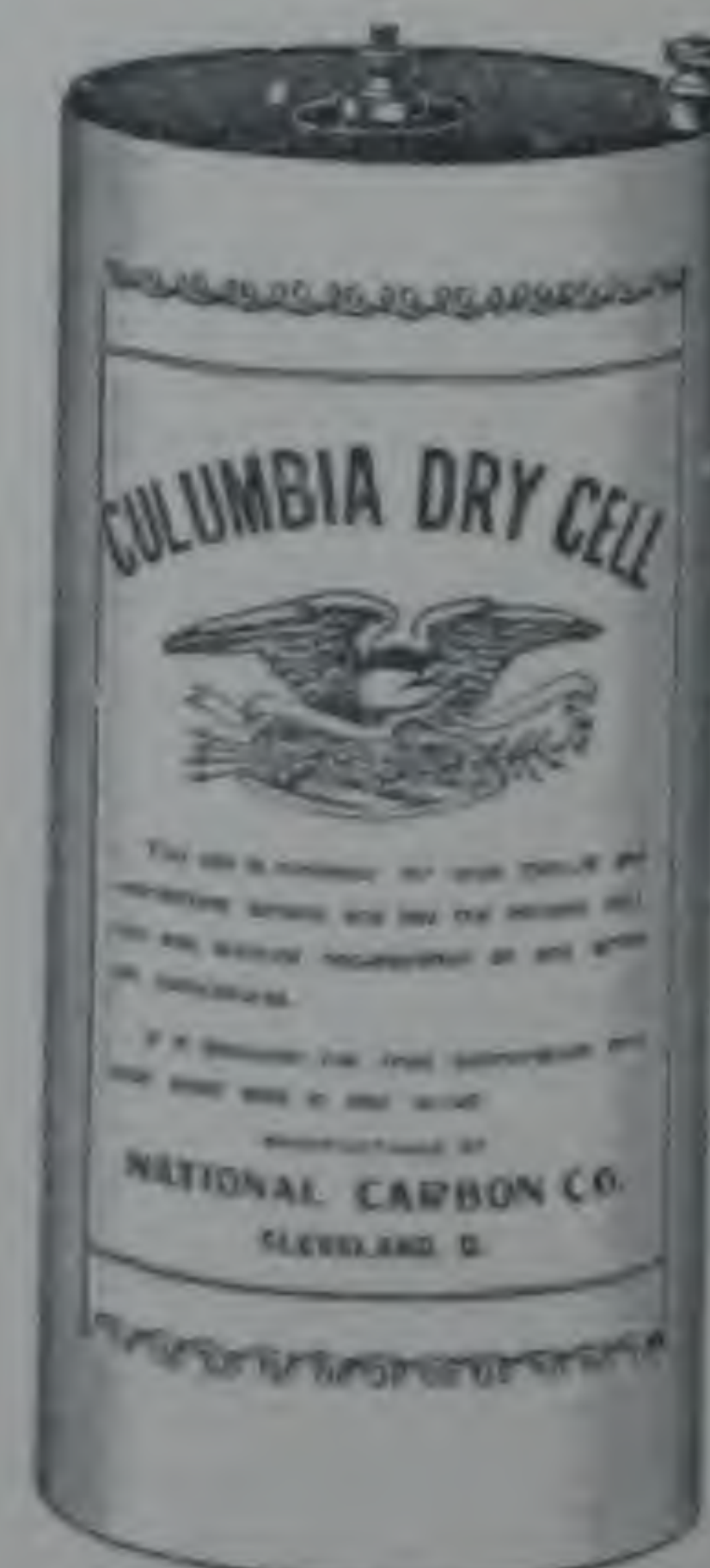
	Less than 12.	12 or less than 50	50 or less than 125.	125 or less than 250.	250 or less than 500.	500 or more
No. 6 Regular Columbia . . . . .	\$0.50	\$0.38	\$0.35	\$0.33	\$0.32	\$0.31
No. 6 Ignitor . . . . .	.50	.40	.38	.36	.35	.34



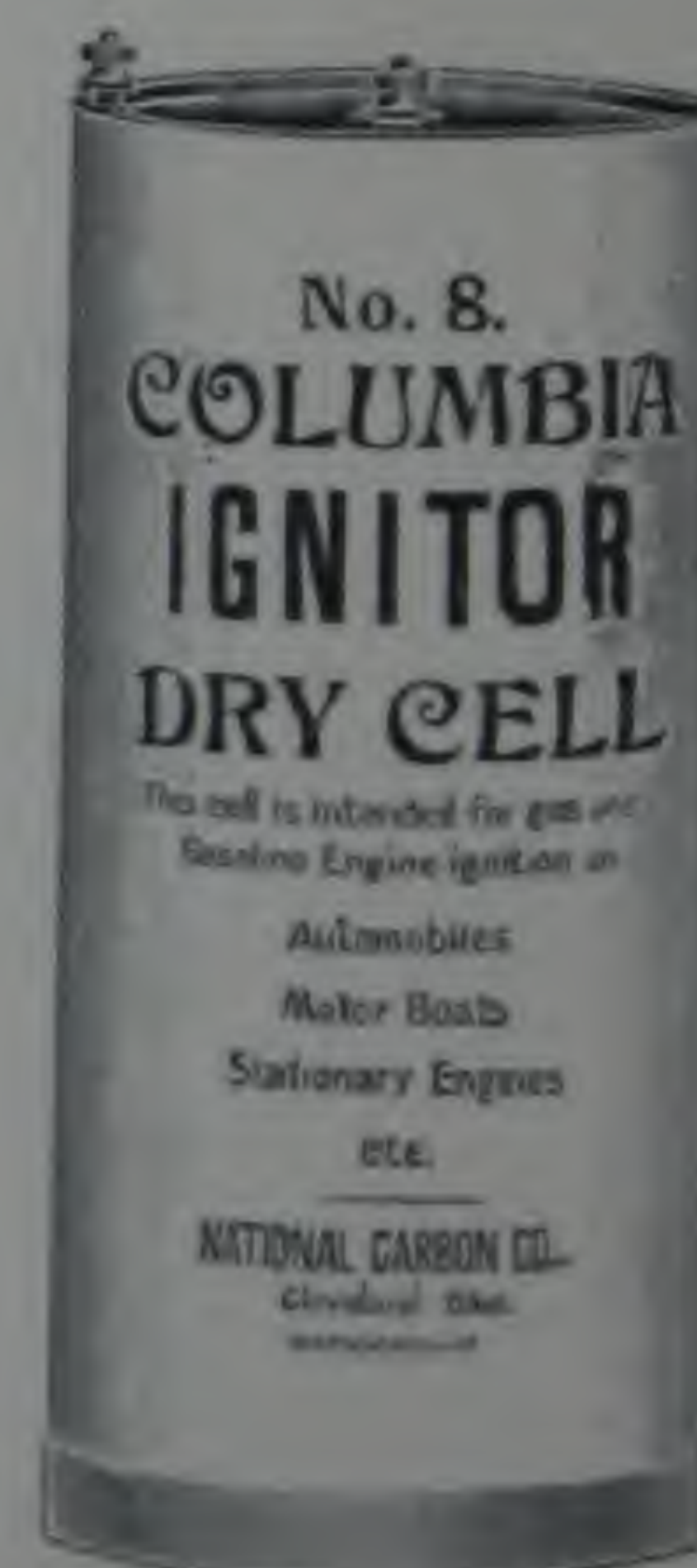
No. 7 Regular  
Size,  $3 \times 7''$



No. 7 Ignitor  
Size,  $3 \times 7''$



No. 8 Regular  
Size,  $3\frac{1}{2} \times 8''$



No. 8 Ignitor  
Size,  $3\frac{1}{2} \times 8''$

	Less than 6.	6 or less than 12.	12 or less than 25.	25 or less than 50.	50 or more.
No. 7 Regular . . . . .	\$1.30	\$1.00	\$0.90	\$0.80	\$0.70
" 7 Ignitor . . . . .	1.40	1.10	1.00	.90	.80
" 8 Regular . . . . .	1.50	1.20	1.10	1.00	.90
" 8 Ignitor . . . . .	1.60	1.30	1.20	1.10	1.00

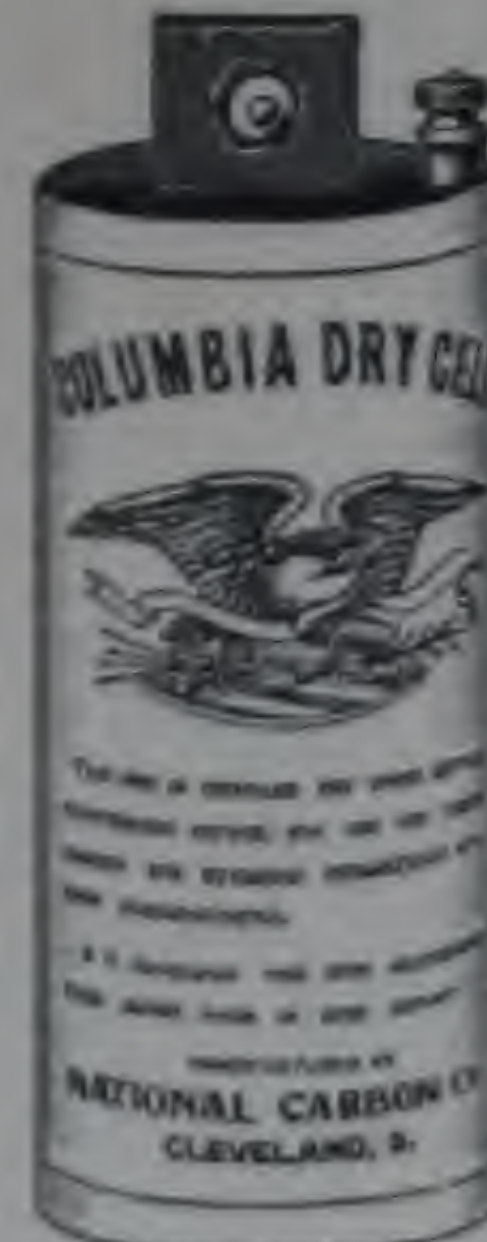
The Ignitor Dry Battery is made expressly for ignition work, giving a remarkably uniform discharge and long life.



## Columbia and Ever Ready Dry Batteries



No. 6 Reserve



No. 5 Columbia



No. 4 Columbia

		Less than 12.	12 or less than 50.	50 or less than 125.	Lots of 125 or Multiples.
No. 6 Reserve (Size, 2½ x 6")		\$0.80	\$0.72	\$0.66	\$0.60
	Less than 6.	6 or less than 12.	12 or less than 25.	25 or less than 50.	50 or more.
No. 7 Reserve (Size, 3 x 7")	\$1.50	\$1.20	\$1.10	\$1.00	\$0.90
" 8 " ( " 3½ x 8")	1.70	1.40	1.30	1.20	1.10
	Less than 12.	12 to 50.	50 to 100.	100 to 200.	200 and over.
No. 5 (Size, 2 x 5")	\$0.36	\$0.30	\$0.29	\$0.28	\$0.27
" 4 " 1½ x 4")	.30	.28	.27	.26	.25

The Reserve Dry Battery does not deteriorate with age.

To use the Reserve Dry Battery remove cork from carbon and pour in all the water the cell will absorb, replace the cork and then use the same as any other dry battery.



Style J—Ever Ready (2½ x 6")

Less than 12	\$0.50
12 or less than 50	.46
50 " " " 125	.42
125 and over	.37

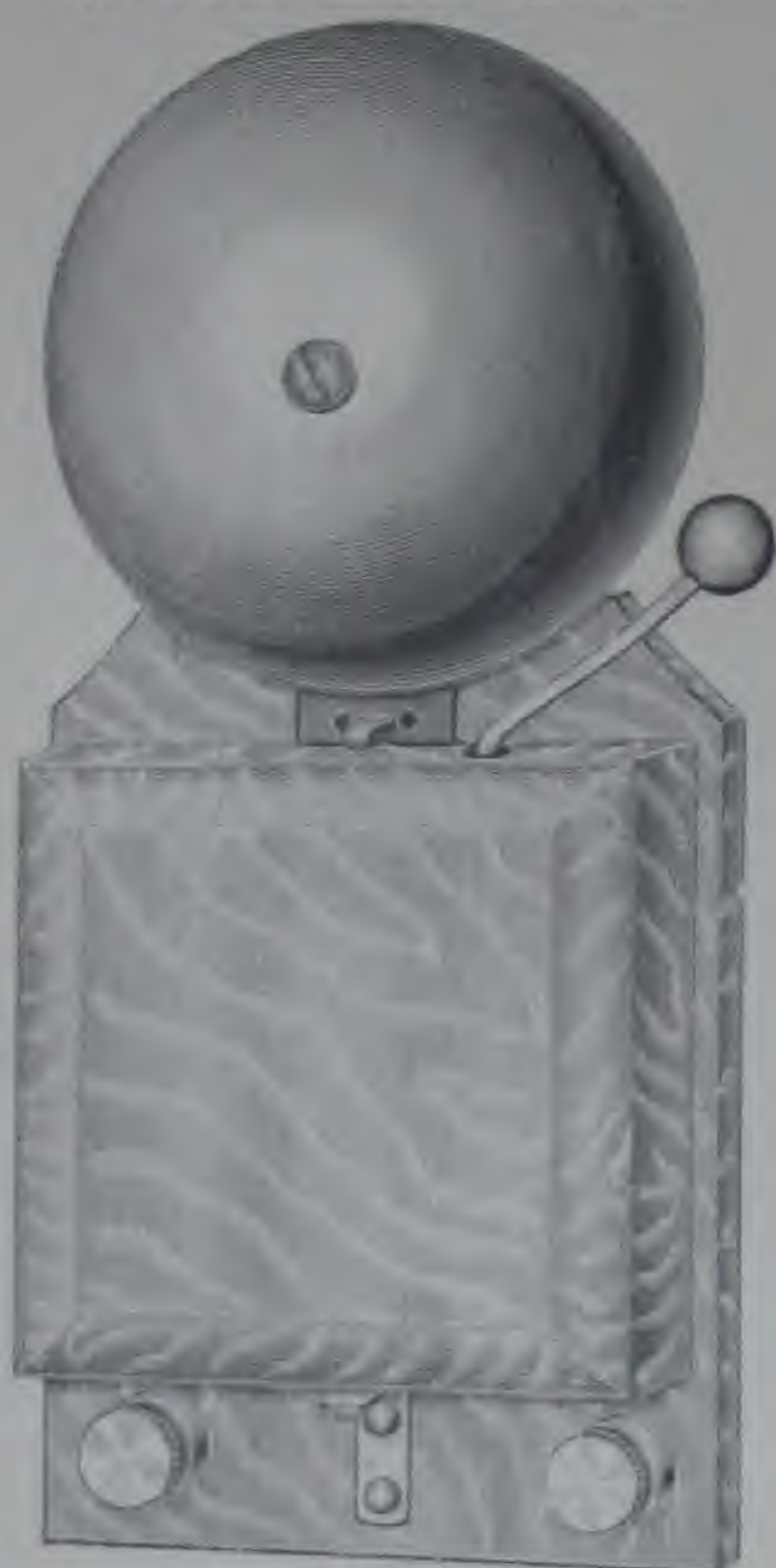


Style K—Ever Ready (3 x 7")

Less than 6	\$1.00
6 or less than 12	.90
12 " " " 25	.84
25 " " " 75	.80
75 and over	.74



## Wood Box Bells



	Less than 25.	25 to 100.	100 lots.
2½ inch . . . . .	\$0.76	\$0.72	\$0.66
3 " . . . . .	.78	.74	.68
4 " . . . . .	.98	.92	.86

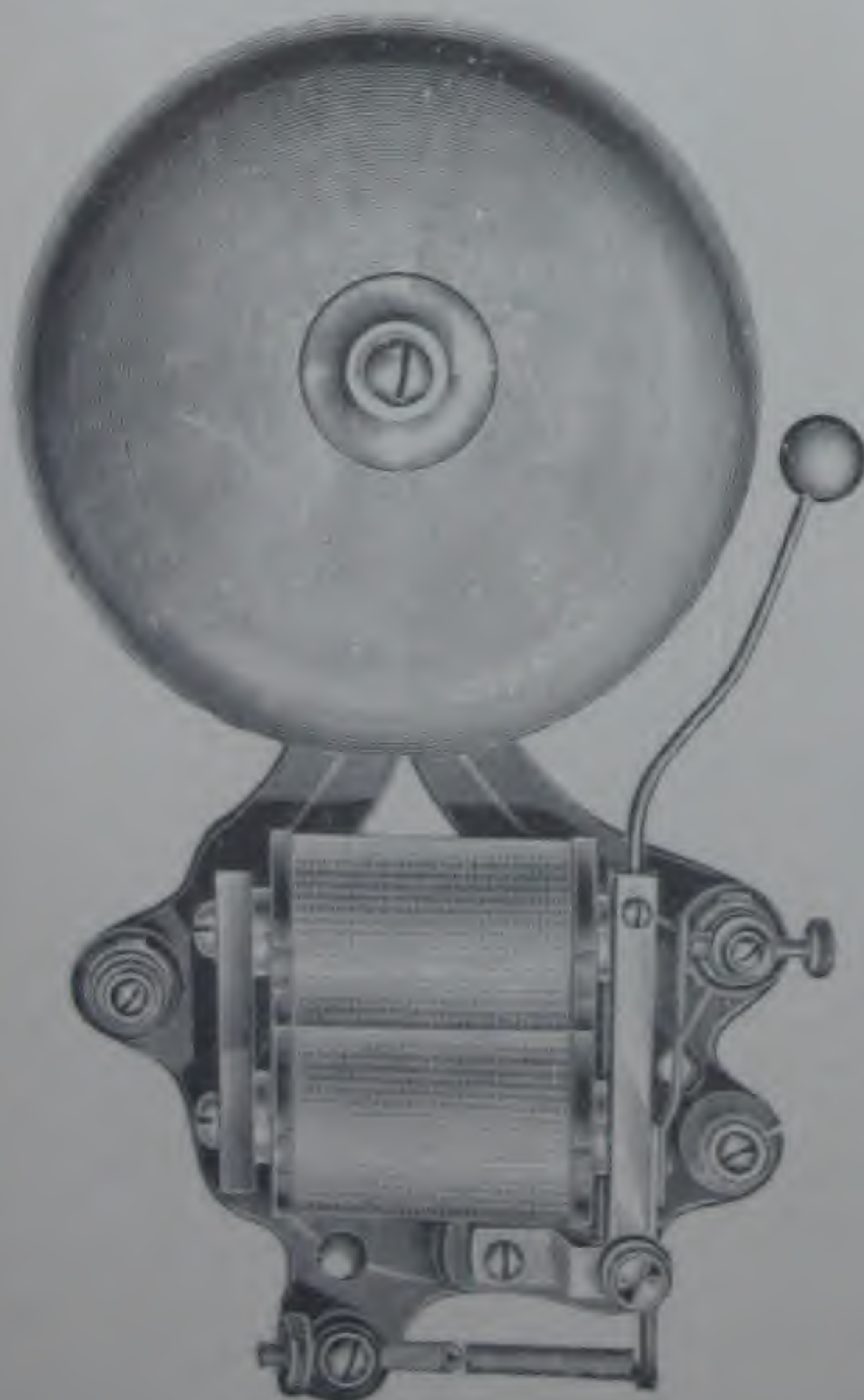
Wood and Iron Box Bells and Iron Box Buzzers can be assorted to make up quantity.

## Iron Box Bells



	Less than 25.	25 to 100.	100 lots.
2½ inch . . . . .	\$0.54	\$0.52	\$0.48
3 " . . . . .	.56	.54	.50
4 " . . . . .	.74	.70	.66

Iron and Wood Box Bells and Iron Box Buzzers can be assorted to make up quantity.



## Pivoted Armature Bells

	Less than 6.	6 to 25.	25 to 50.
2½ inch . . . . .	\$2.00	\$1.84	\$1.76
3 " . . . . .	2.08	1.92	1.82
4 " . . . . .	2.34	2.16	2.06
5 " . . . . .	3.32	3.12	2.98
6 " . . . . .	3.60	3.50	3.36
8 " . . . . .	6.00	5.50	5.25
10 " . . . . .	9.60	8.80	8.40
12 " . . . . .	12.00	11.00	10.50

Assortment of sizes permitted to make up quantity.



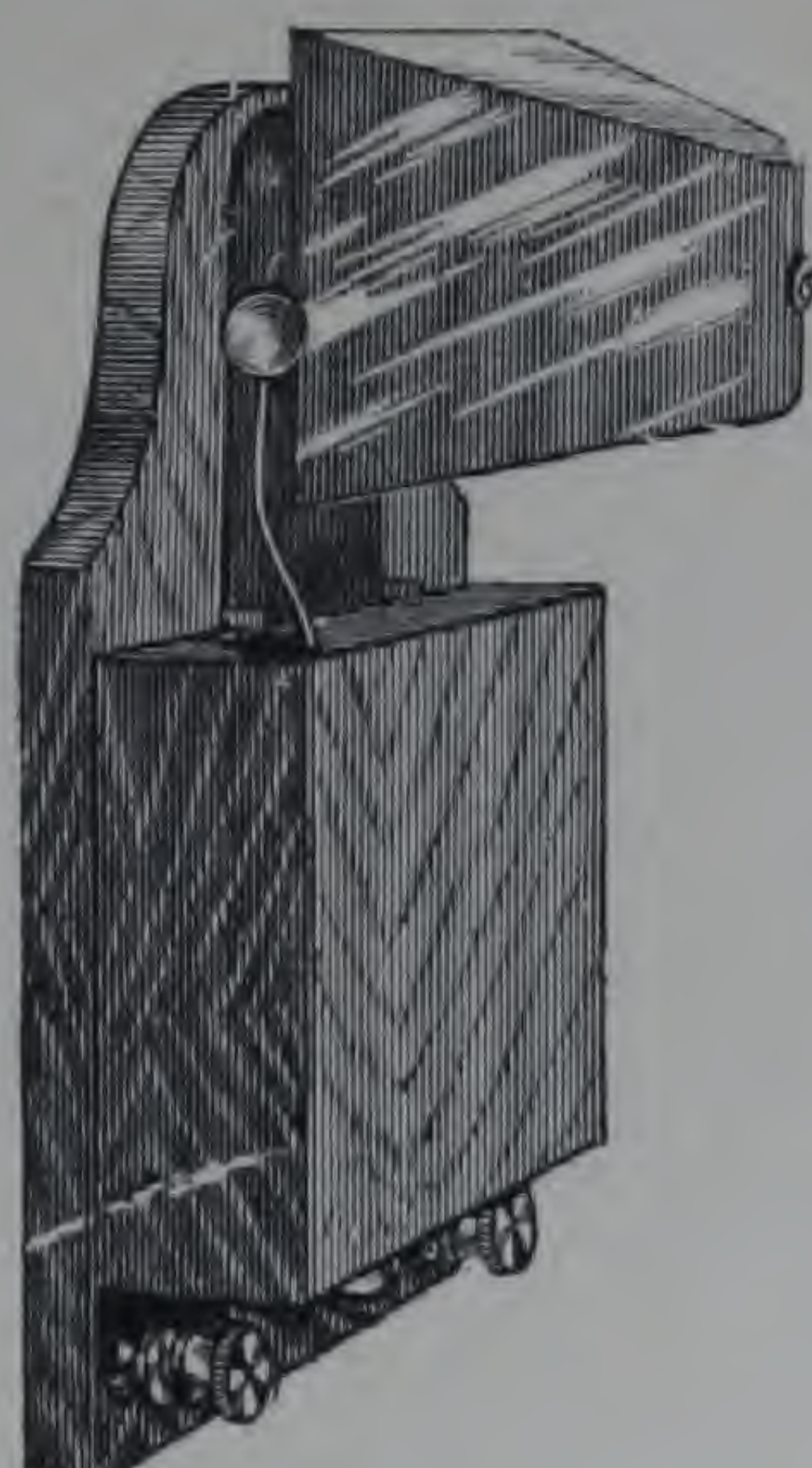
## Fancy Gong Bells

Tea or Dinner Bell



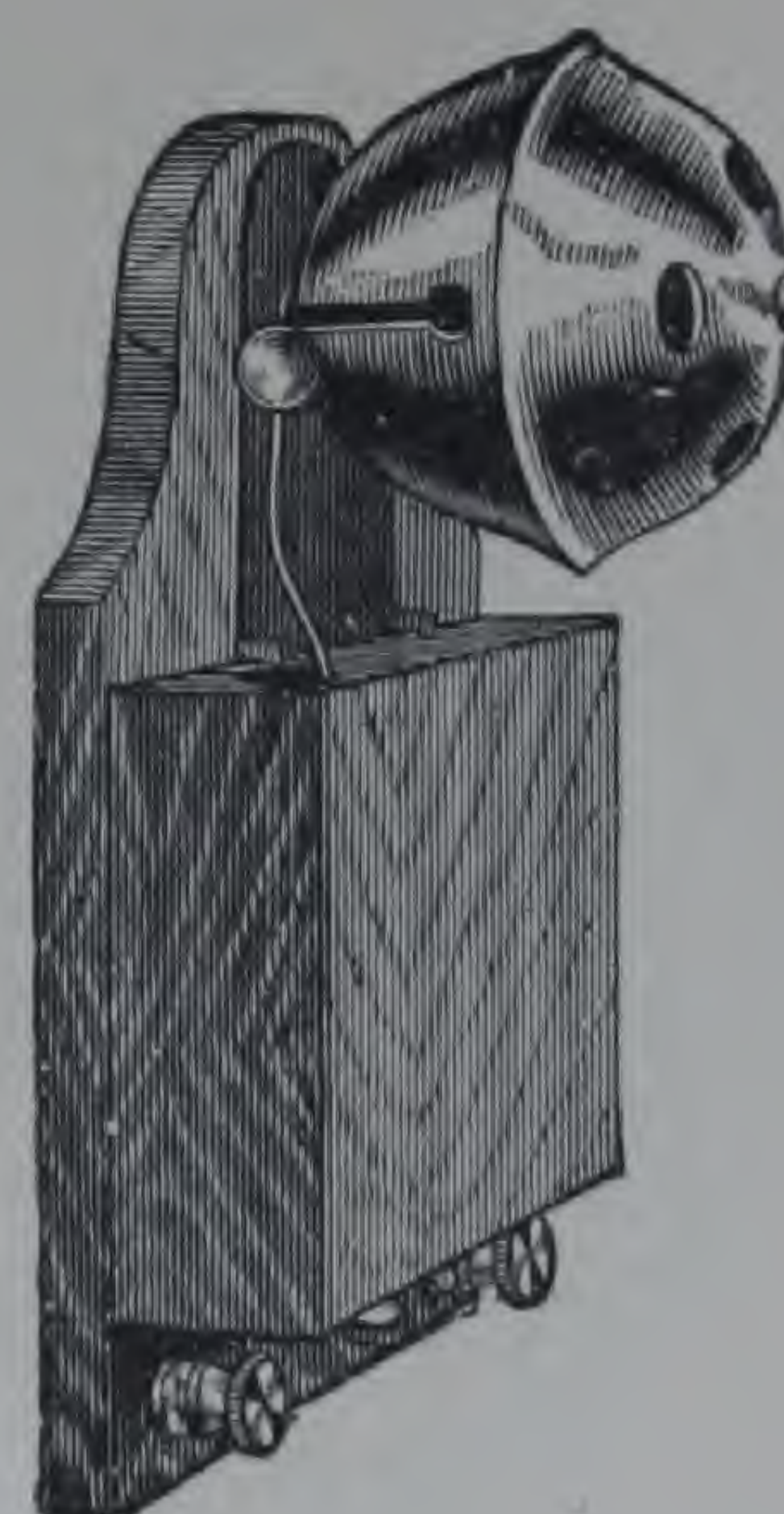
Wood Box	.	.	\$1.06
Iron "	.	.	.84

Cow Bell



Wood Box	.	.	\$1.06
Iron "	.	.	.84

Sleigh Bell



Wood Box	.	.	\$1.06
Iron "	.	.	.84

Dome Bell



Wood Box	.	.	\$1.06
Iron "	.	.	.84

Garland Bell



Wood Box	.	.	\$1.06
Iron "	.	.	.84

Tyroleon Bell

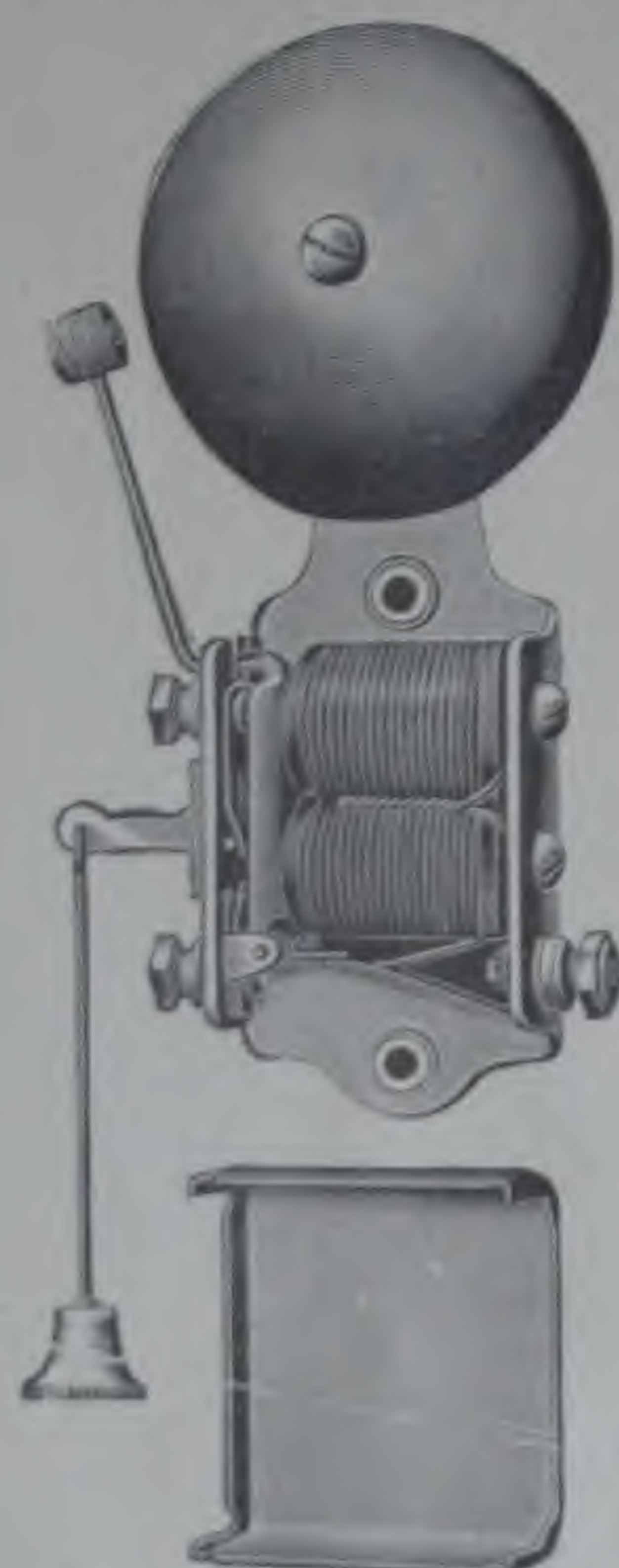


Each	.	.	\$5.00
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Special prices allowed on above when bought in quantities of 25 and over, assortment can be made up including Iron and Wood Box Bells and Iron Buzzers.



## Constant Ringing Bell

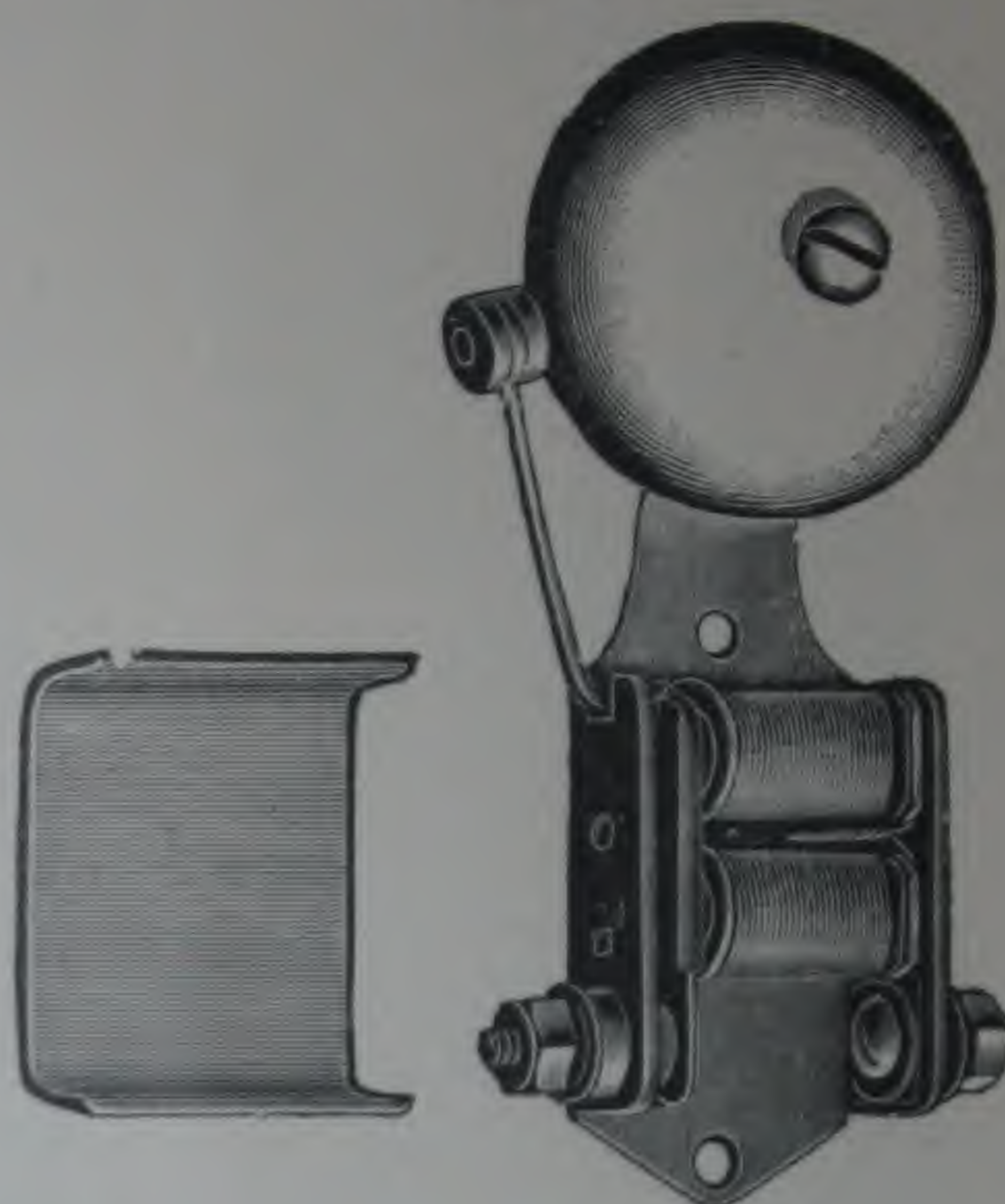


Rings until lever is raised.

3 inch . . . . . \$1.55

Larger sizes furnished on order.

## Eco Bells

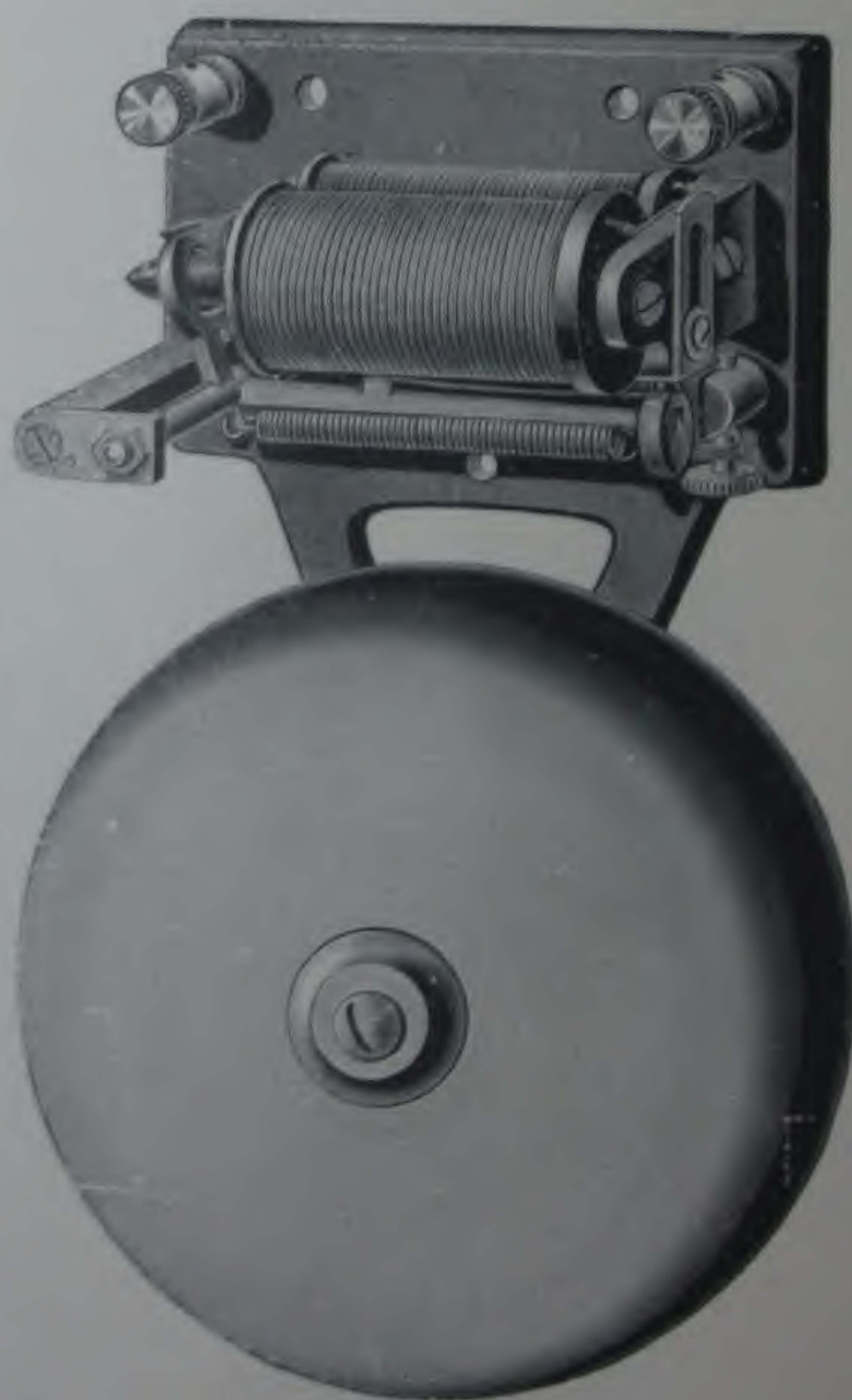


1 inch	.	.	.	.	.	.	\$0.90
1 3/4 inch	.	.	.	.	.	.	.78
2 inch	.	.	.	.	.	.	.80

## Vigilant Bells

	Single stroke.	Vibrating.	Series.
2 1/2 inch	\$4.80	\$5.80	\$6.80
3 inch	5.00	6.00	7.00
4 "	5.50	6.50	7.50
5 "	6.20	7.20	8.20
6 "	7.50	8.50	9.50
8 "	10.00	11.00	12.00
10 "	14.40	15.40	16.40
12 "	15.00	16.00	17.00
14 "	26.20	27.20	28.20
16 "	30.00	31.00	32.00
18 "	46.50	47.50	48.50
20 "	75.00	76.00	77.00

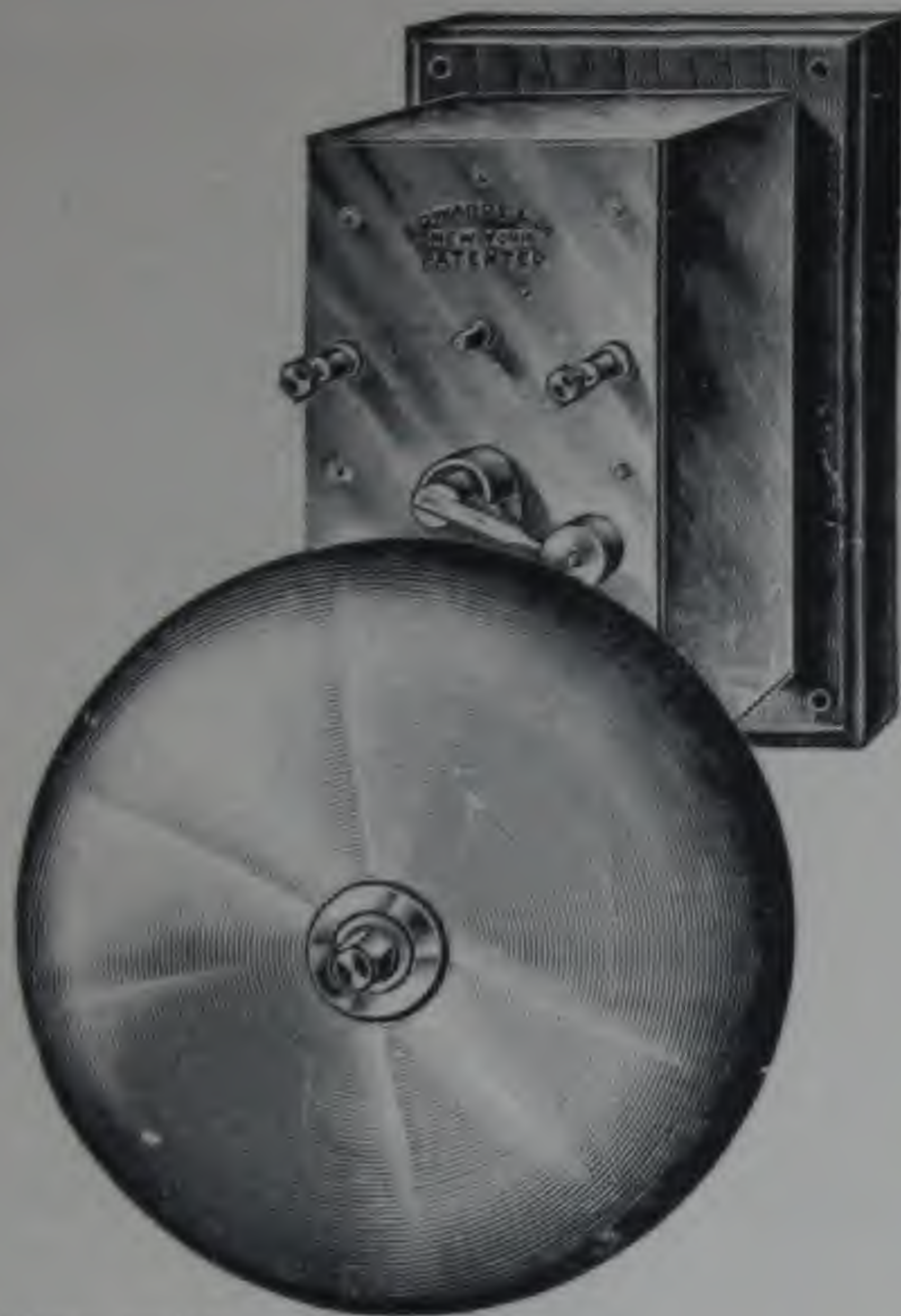
These bells can be wound to operate on direct current up to 500 volts, providing they are not for continuous ringing.





### Electro Mechanical Gongs

(For use indoors)

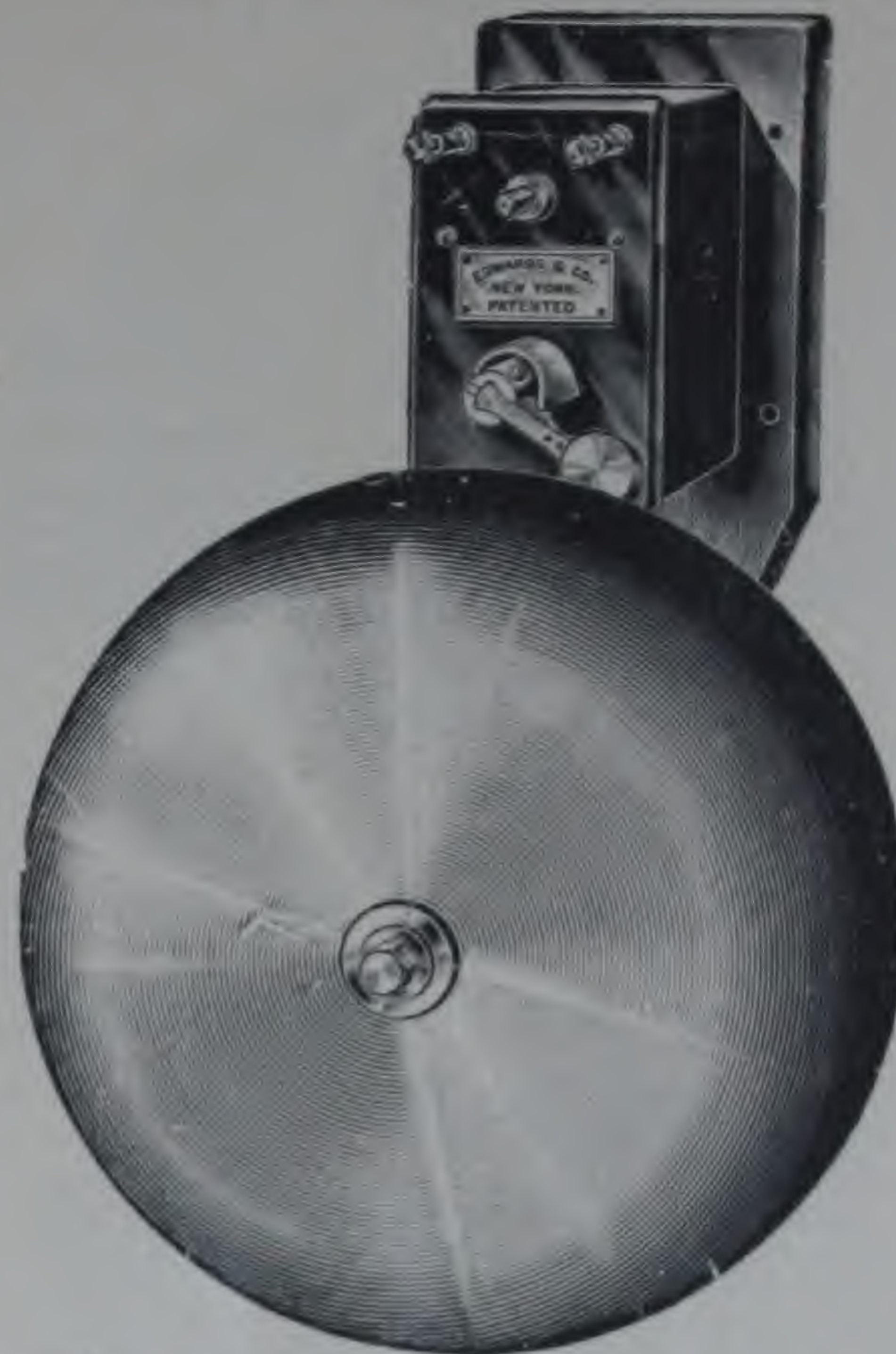


5 inch, 10 Ohms resistance	\$19.40
6 " 10 " "	20.00
8 " 10 " "	22.50
9 " 10 " "	25.00

Can be arranged to operate as a single stroke or constant ringing or to ring continuously until run down after circuit is closed.

### Electro Mechanical Gongs

(Can be used in exposed places)



8 inch, 4 Ohms resistance	\$30.00
10 " 4 " "	31.00
12 " 4 " "	35.00
14 " 4 " "	40.00
15 " 4 " "	42.50
16 " 4 " "	45.00
18 " 4 " "	55.00

Can be arranged to operate as a single stroke, constant ringing, or to ring continuously until run down after circuit is closed.

### Recti Weather-proof Vibrating Bells

Water, dust and insect-proof



2½ inch, 3 Ohms	\$4.90	8 inch, 3 Ohms	\$10.50
3 " 3 " "	5.50	9 " 3 " "	13.50
3½ " 3 " "	5.60	10 " 3 " "	16.50
4 " 3 " "	5.75	12 " 3 " "	22.50
5 " 3 " "	7.50	14 " 3 " "	27.50
6 " 3 " "	8.50	16 " 3 " "	35.00
7 " 3 " "	9.50	18 " 3 " "	45.00

Can be wound for any voltage up to 500 volts.

### Weather-proof Bell Hood

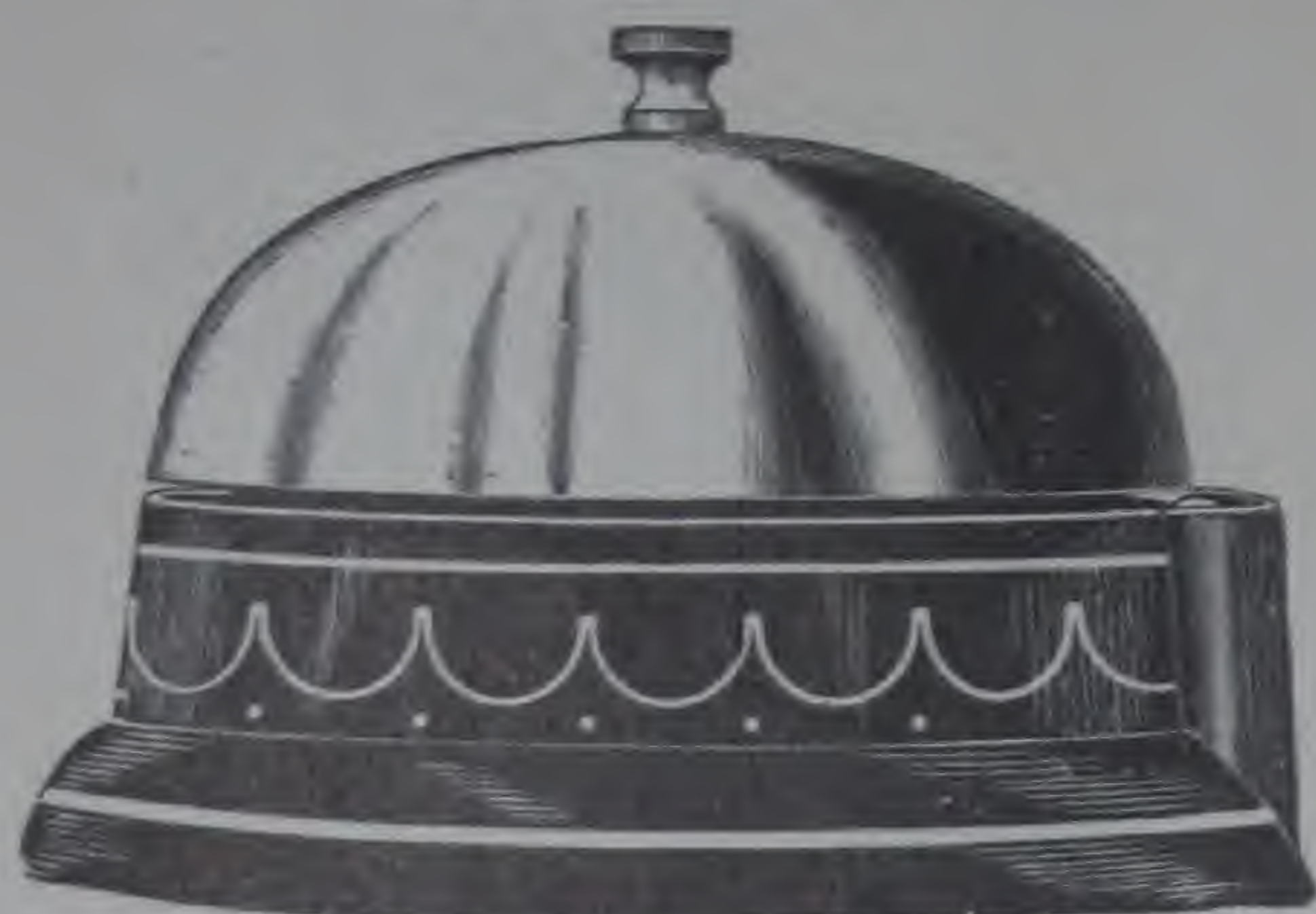
Made of Galvanized Iron



For 8 inch Bells	\$ 7.00
" 10 " "	9.00
" 12 " "	11.00



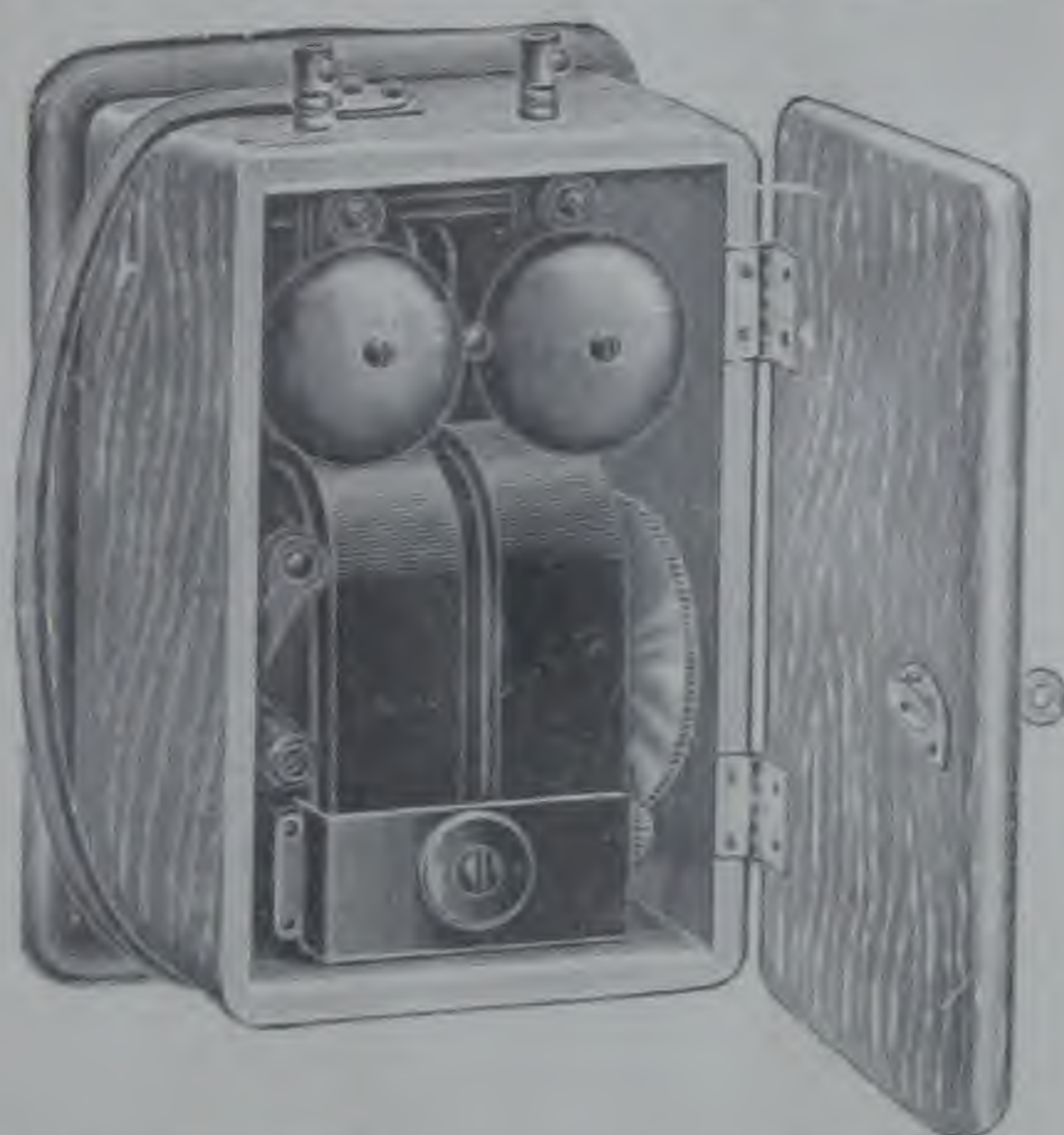
## King Bell



3 inch Gong. 3 5/8 inch Base

Less than 25		\$0.70
25 to 50		.68
50 " 100		.66

## Magnetto Testing Bells



10,000 Ohms, \$9.75	35,000 Ohms, \$12.00
15,000 " 10.15	50,000 " 12.75
25,000 " 11.25	

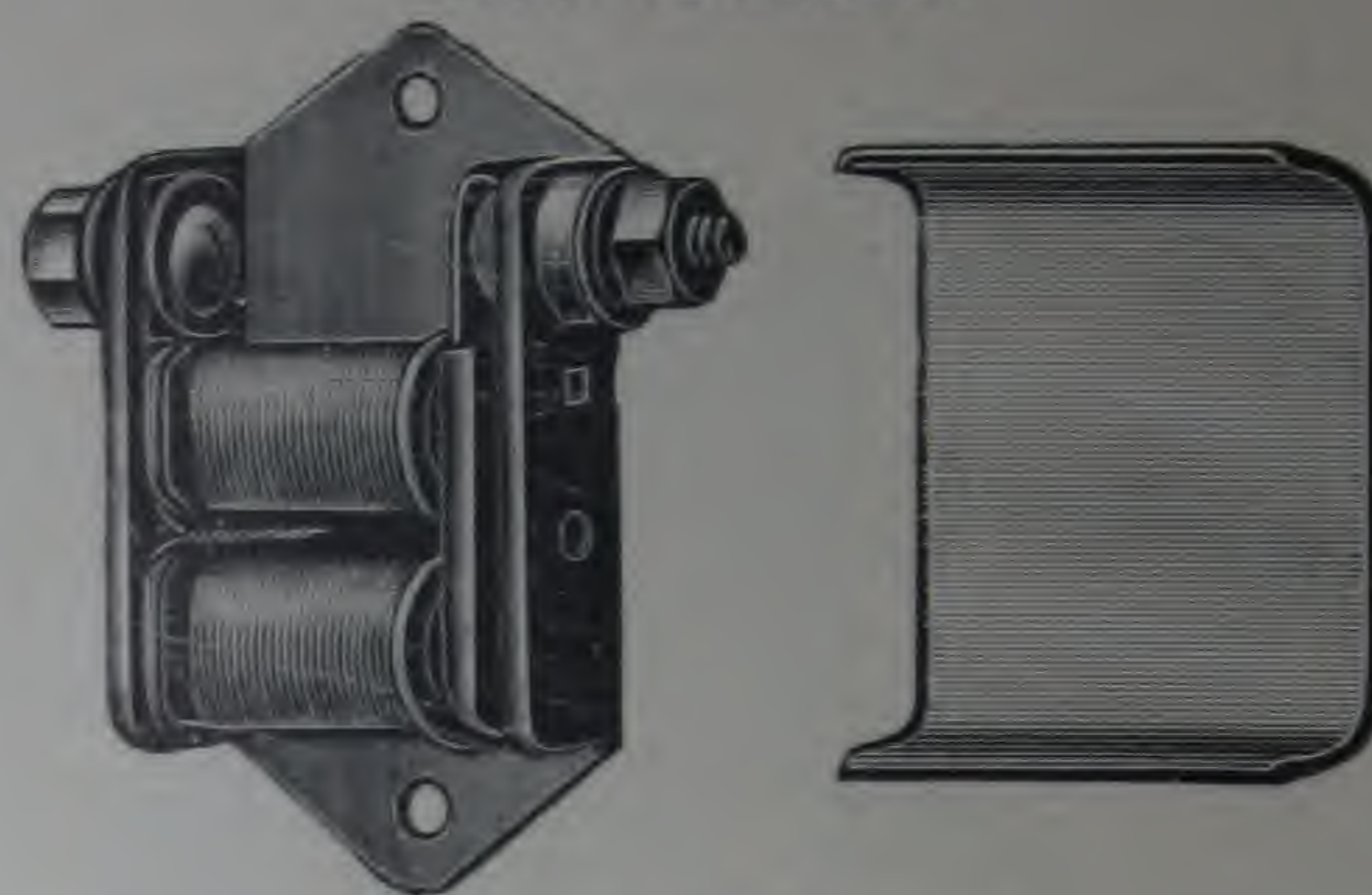
## Constant Ringing Attachment



No. 41. For Battery use

Each	\$1.25
------	--------

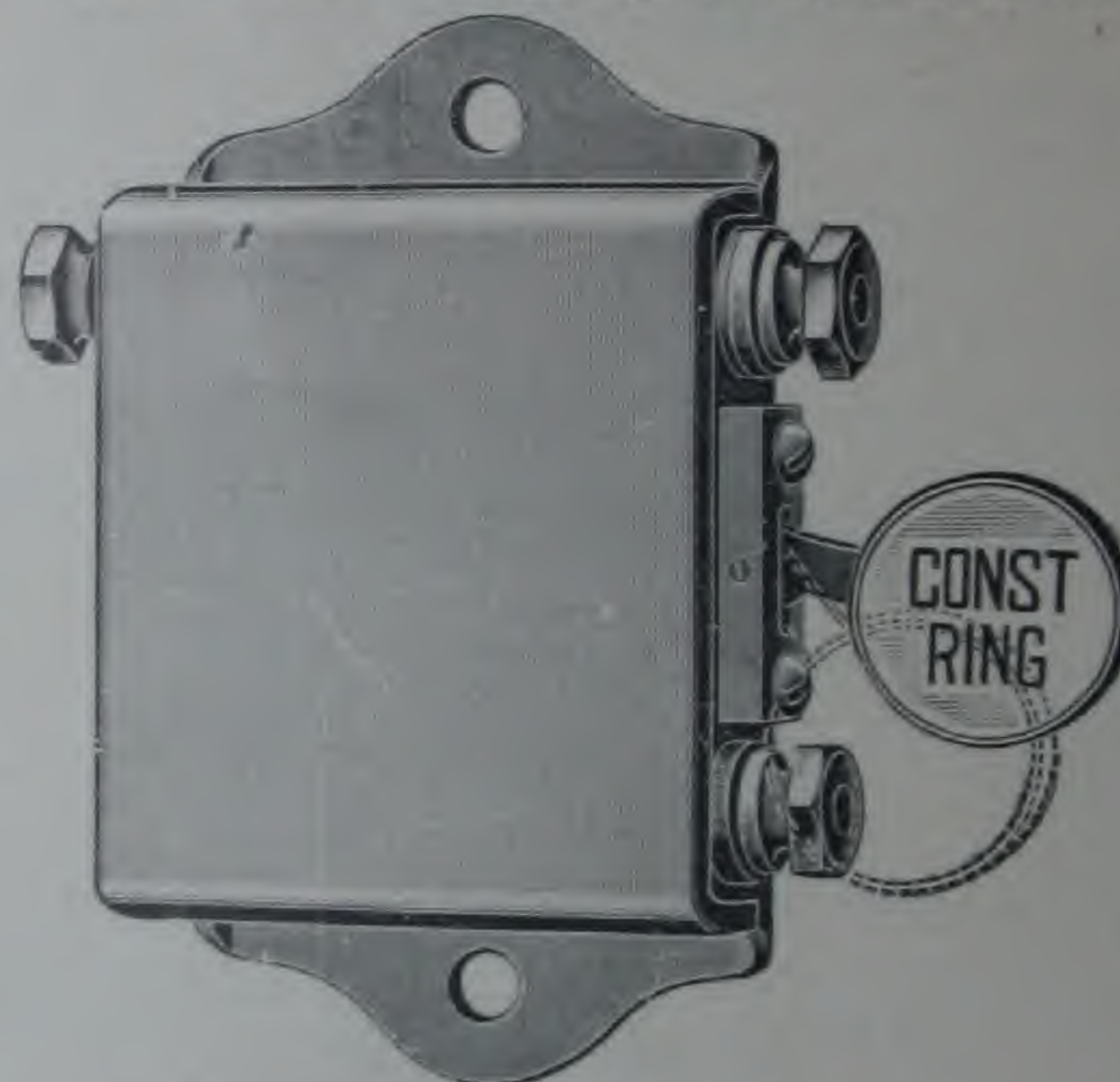
## Eco Buzzers



No. 0 (Exact size)

No. 0, 3 Ohms	\$0.66
" 1, 3 "	.56
" 2, 3 "	.60
" 3, 3 "	.62
" 4, 3 "	.65

## Constant Ringing Attachment



No. 26

For Battery, 4 Ohms	\$1.35
" Magnetto, 80 Ohms	2.00

## Constant Ringing Attachment



No. 42

For Battery	\$1.30
" Magnetto	1.80



## Iron Box Buzzers



Less than 25	. . . . .	\$0.52
25 to 100	. . . . .	.50
100 Lots	. . . . .	.46

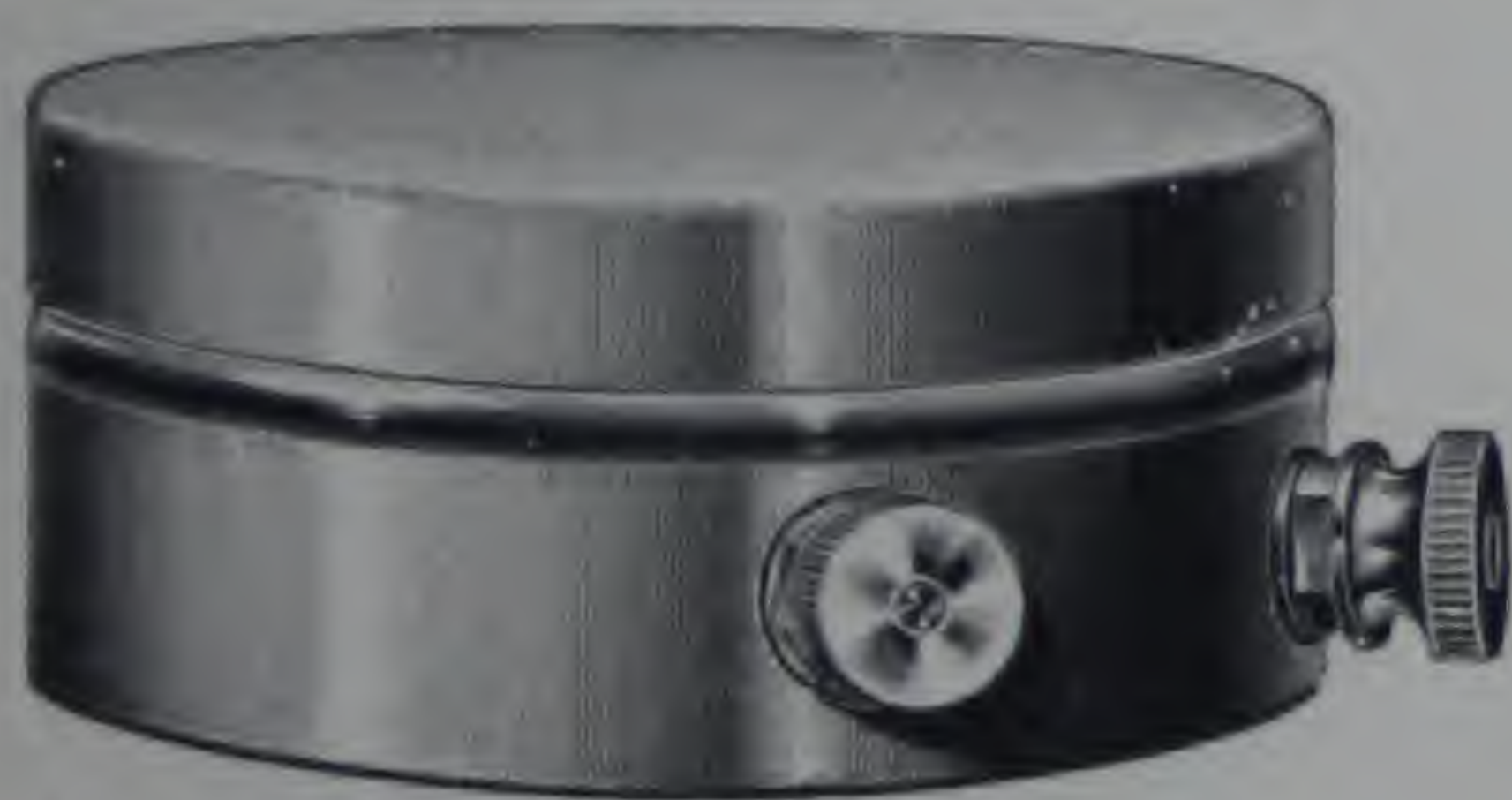
Assortment can be made including Iron and Wood Box Bells.

## Bee Hive Buzzers



Each	. . . . .	\$0.80
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## Watch Case Buzzer



Nickel	. . . . .	\$0.60
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## Nutmeg Buzzer



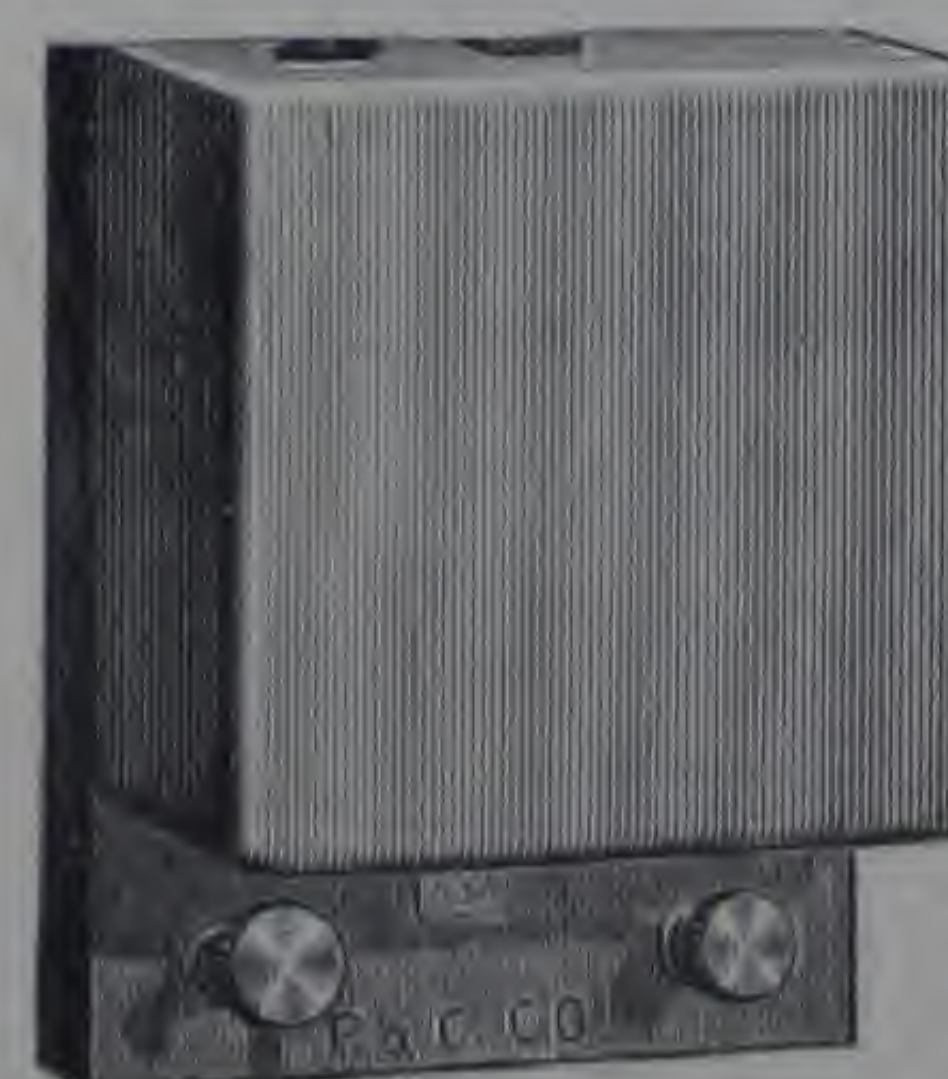
Nickel	. . . . .	\$0.60
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## Round Wood Buzzer



Each	. . . . .	\$0.60
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## Square Wood Buzzer



Each	. . . . .	\$0.76
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### The Specialty Tube

This can be furnished tuned to any musical note, to operate same as a single stroke or vibrating bell, and is more pleasing to the ear than the ordinary electric bell.

List Price . . . . . \$15.00

### The Specialty Chimes

The cut illustrates the new Specialty Tubular Chimes, which consist of a set of tubes same size and tone as are used in fine hall clocks with operating mechanism cased in oak, cherry, mahogany or walnut. A great feature with this apparatus is that one can have a fine Westminster or Whittington chime without paying \$200 or \$300 for a hall clock, as these chimes can be operated by any good clock you may have, and arranged to chime the hours and  $\frac{1}{4}$  hour.

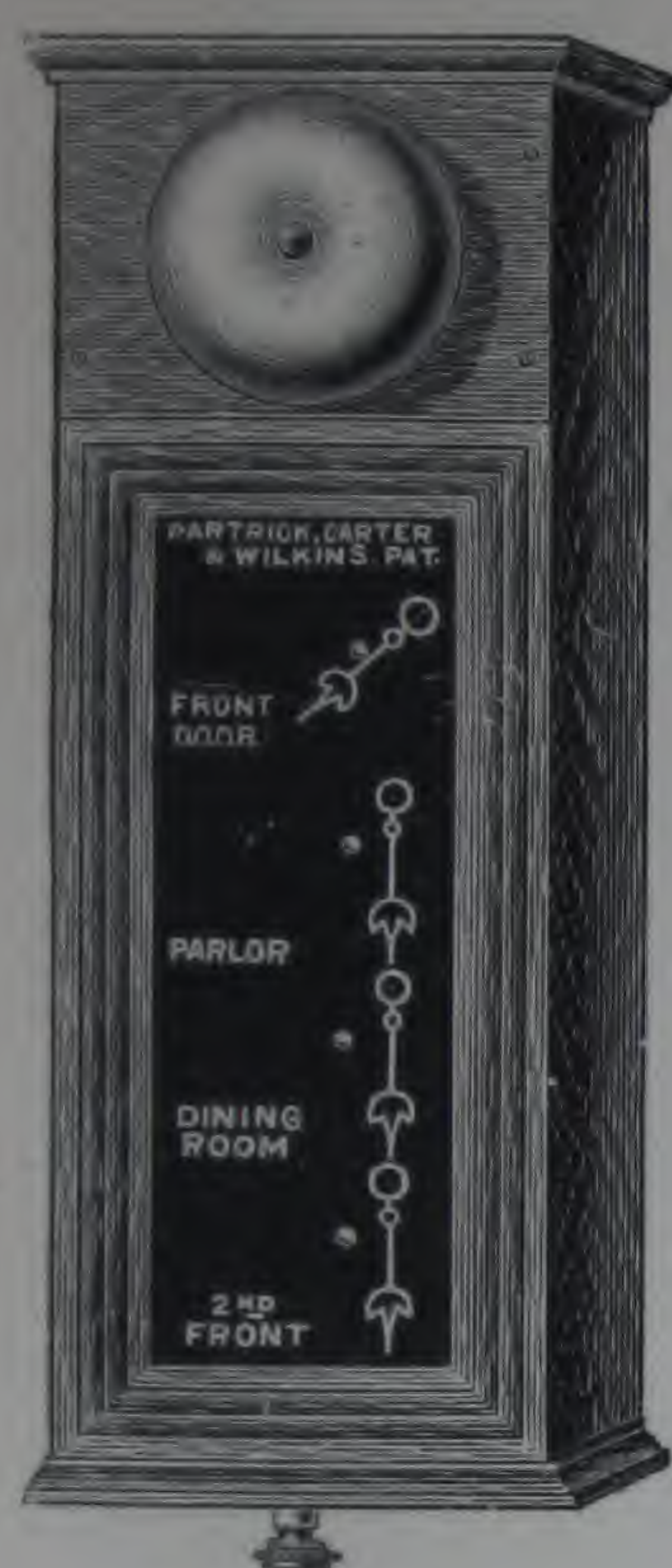
Perhaps its greatest novelty is its use as a front door call; connected as an ordinary door bell it will play the full chime each time door button is pushed. These chimes are furnished with any number of tubes arranged to play differently,—as one, two, three or more tubes often being used for breakfast or special calls.

4 Tubes (Westminster)	. . . . .	\$75.00
8 " (Whittington)	. . . . .	90.00
Hour Strike (Extra)	. . . . .	20.00

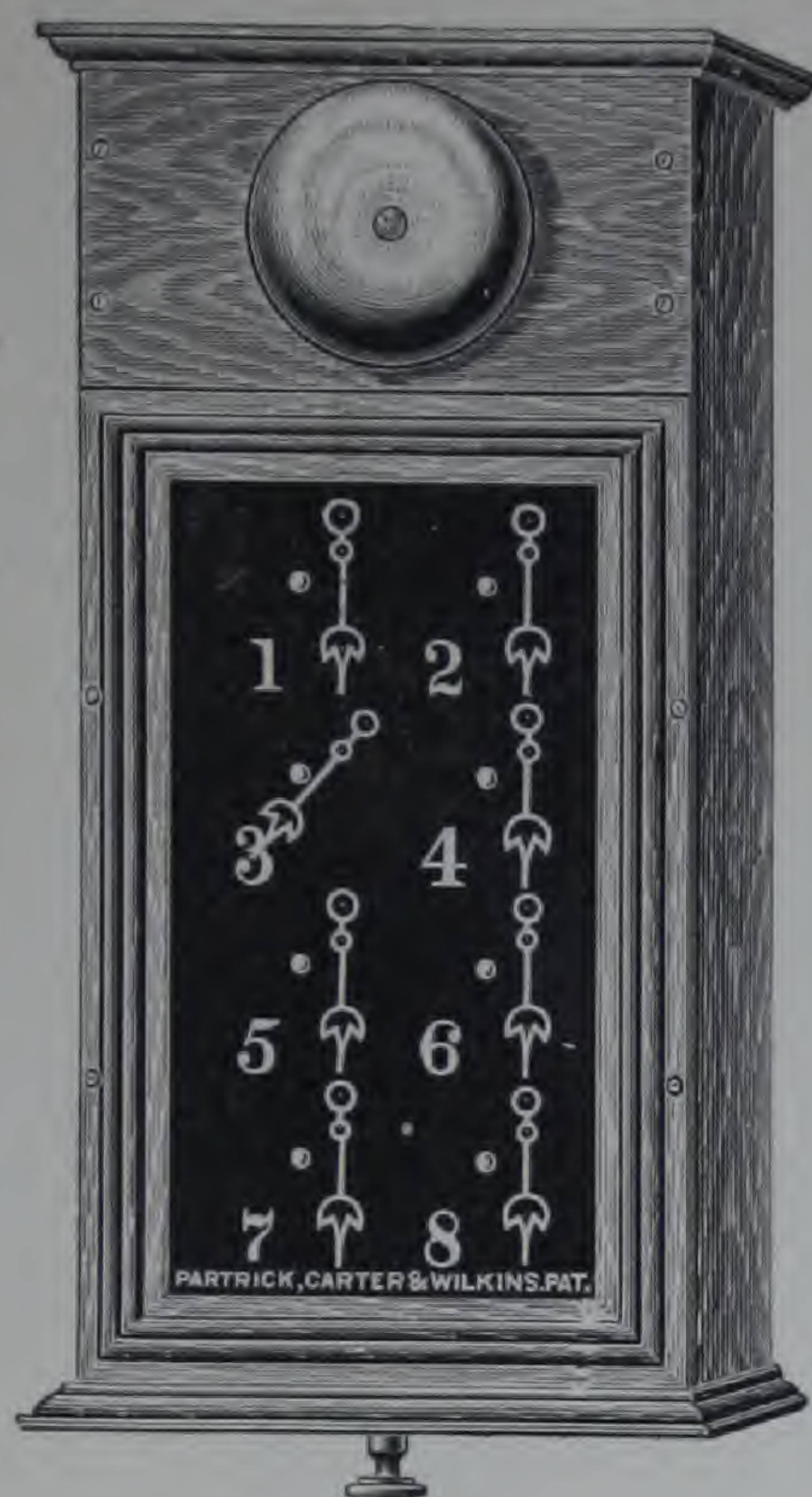




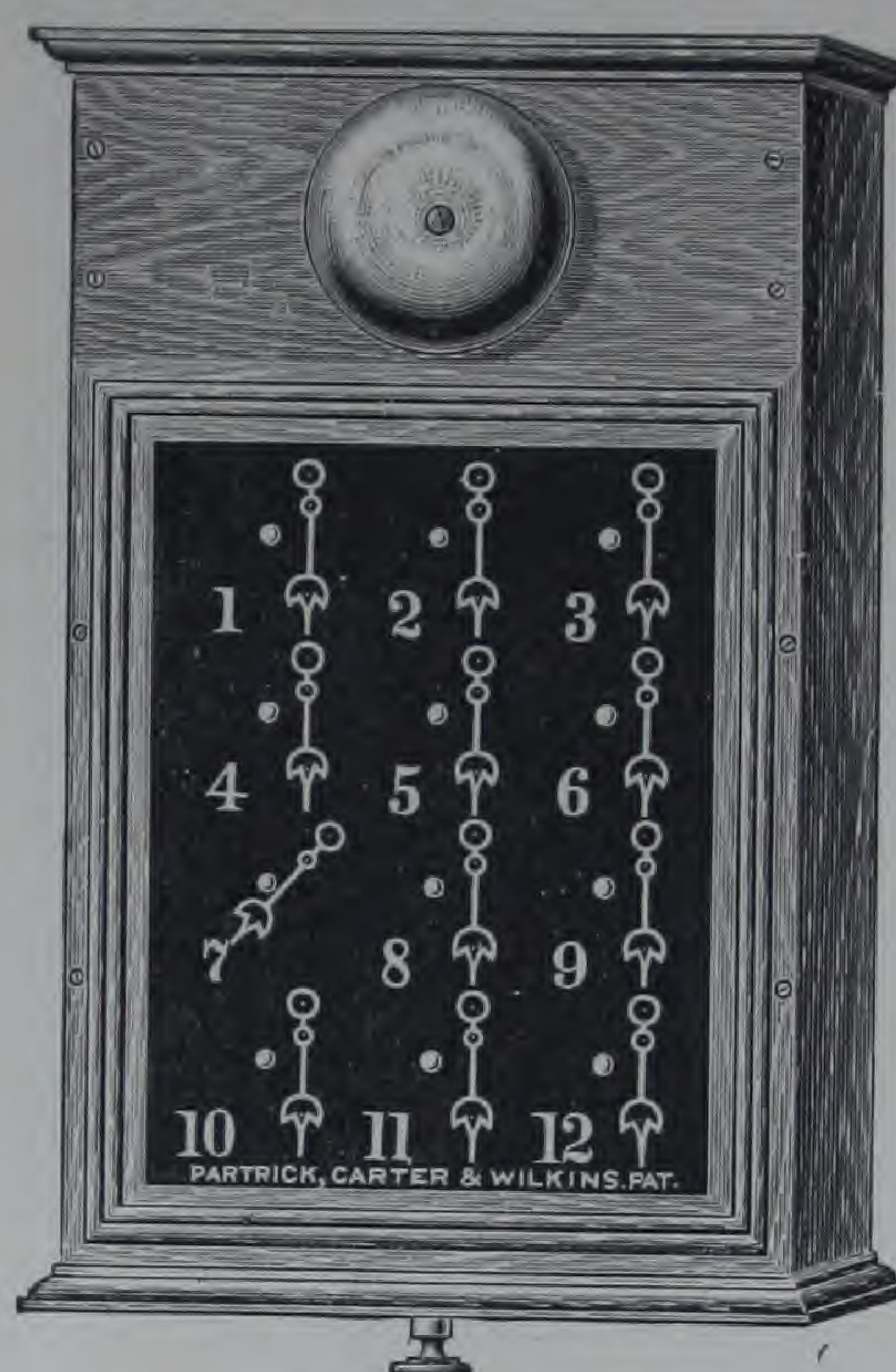
## The Competition Annunciator



4 Number



8 Number



12 Number

	Width.	Height.	
3 Number	6"	12 3/4"	\$5.00
4 "	6"	14 3/4"	5.50
5 "	6"	16 3/4"	6.00
6 "	7 1/2"	12 3/4"	7.00
8 "	7 1/2"	14 3/4"	8.00

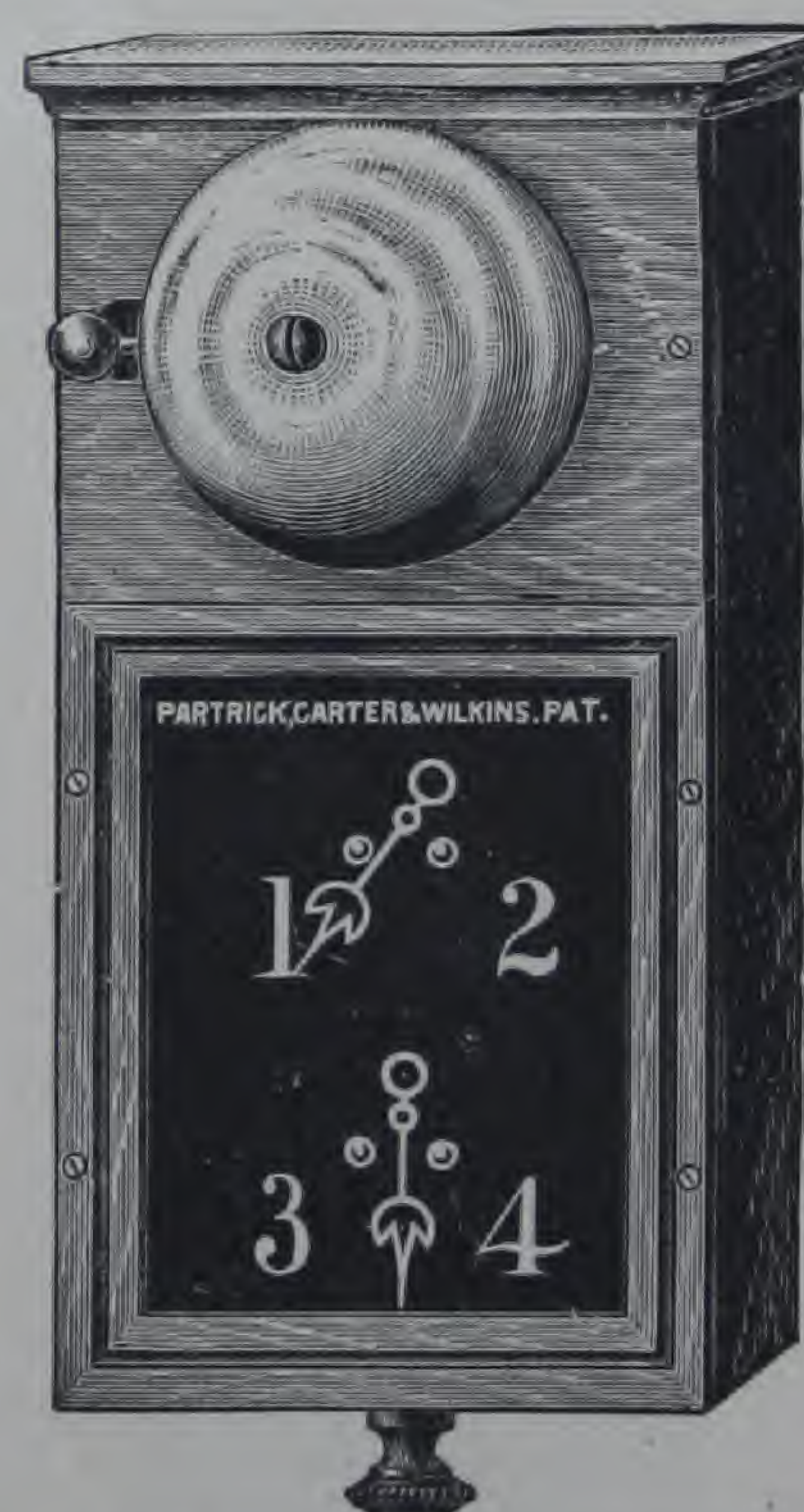
	Width.	Height.	
10 Number	7 1/2"	16 3/4"	\$10.00
12 "	9 1/2"	14 3/4"	11.24
15 "	9 1/2"	16 3/4"	13.74
20 "	11 1/2"	16 3/4"	17.50

The 3, 4 and 5 numbers in single row.



## The King Annunciator

Made in Oak only



	Width.	Height.	Numbered.	Lettered.
2 Number	4 1/2"	6 1/4"	\$2.50	\$2.74
4 "	5"	9 3/8"	3.74	4.14
6 "	5"	11 3/8"	5.00	5.64
8 "	5"	13 3/8"	6.00	6.74

An extra point can be made on the King or Competition Annunciator, by placing Pocket Buzzer on top of case.

Cost of Buzzer Attachment, \$1.00 extra.





8 Number

### Automatic Set Back Annunciators



8 Number, Flush Case

4 Number				
6	"			
8	"			
10	"			
12	"			
16	"			
20	"			

Size of Regular Case		
Width.	Height.	
5 1/4"	15 1/2"	
6 3/4"	13 1/2"	
6 3/4"	15 1/2"	
6 3/4"	17 1/2"	
11 1/4"	13 1/2"	
11 1/4"	15 1/2"	
11 1/4"	17 1/4"	

Size of Hole Required for Flush Case.		
Width.	Height.	Depth.
5 1/4"	14 5/8"	3 1/2"
6 3/4"	12 5/8"	3 1/2"
6 3/4"	14 5/8"	3 1/2"
6 3/4"	16 3/8"	3 1/2"
11 1/4"	12 5/8"	3 1/2"
11 1/4"	14 5/8"	3 1/2"
11 1/4"	16 5/8"	3 1/2"

\$8.74
10.50
11.74
13.24
17.50
22.50
27.50

Flush Case same price as regular case.



### Guarantee Self-setting Annunciators

Made in Oak only



4 Number	Width.	Height.
6	6"	14 3/4"
	7 1/2"	12 3/4"

\$6.50
8.00

8 Number	Width.	Height.
10	7 1/2"	14 3/4"
	7 1/2"	16 3/4"

\$9.00
10.40



## Style H Annunciators



40 Number  
Without Return Ball



House Telephone Annunciator  
25 Number

(Showing Direct and Intercommunicating Plugs)



12 Number  
With Return Ball

	Without Return Call.	With Return Call.	House Telephone Annunciator.
6 Number . . . . .	\$10.00	\$16.00	\$18.50
8 " . . . . .	11.88	18.50	21.00
10 " . . . . .	13.24	20.50	23.00
12 " . . . . .	15.00	23.74	26.24
15 " . . . . .	18.24	30.00	32.50
18 " . . . . .	21.50	33.74	36.24
20 " . . . . .	25.00	37.50	40.00
25 " . . . . .	28.74	45.00	47.50
30 " . . . . .	35.00	53.74	56.24
35 " . . . . .	40.00	60.00	62.50

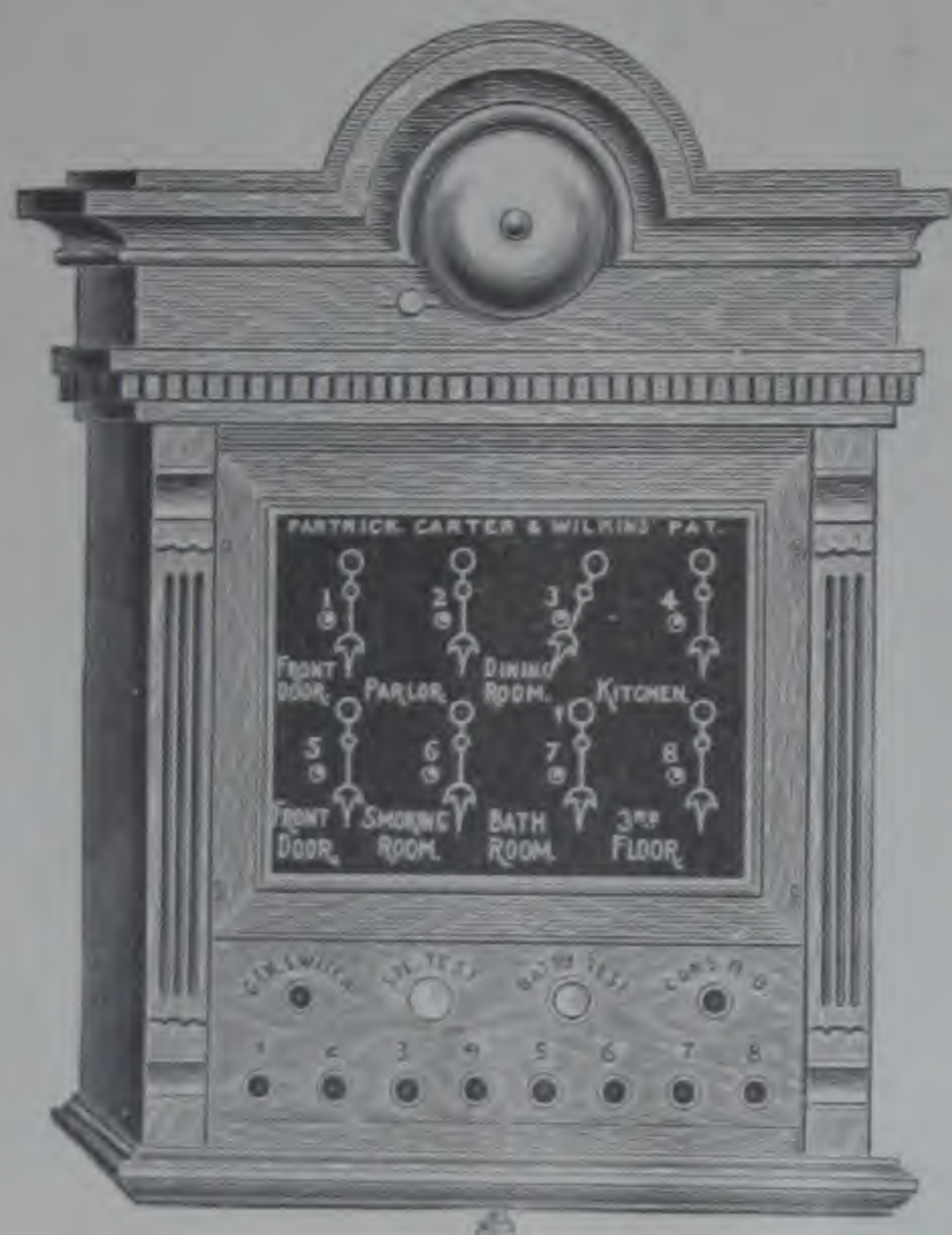
Intercommunicating Plugs and Cord to Telephone Annunciator, Buzzer Signal . . . . .	\$4.50
Visual Signal (Lamp) . . . . .	8.00
Exchange Switch . . . . .	15.00
Simplified Fire Alarm for Return Call or Telephone Annunciators . . . . .	17.00

20 to 35 Numbers make a first-class Annunciator for small hotels.

Style H Telephone Annunciators are made with or without Simplified Fire Alarm Attachment, and also with or without Intercommunicating Plugs, when made intercommunicating can be with Visual (small lamp) or Audible (Buzzer) Clearing-out Signal.

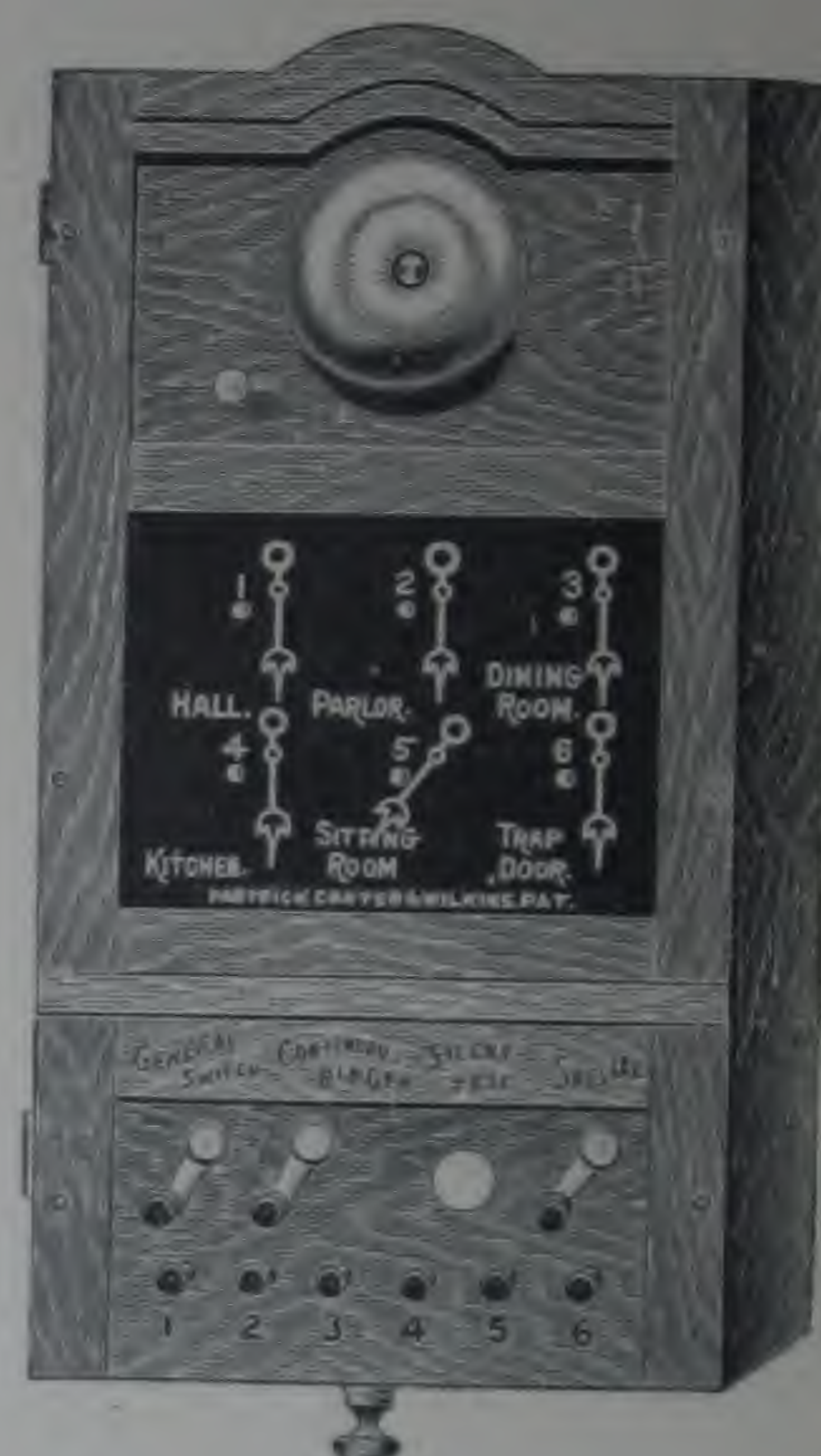


## Burglar Alarm Annunciators



Style A, without Clock

4 Indications	.	.	.	.	.	\$35.00
6 "	.	.	.	.	.	38.76
8 "	.	.	.	.	.	42.50
10 "	.	.	.	.	.	46.24
12 "	.	.	.	.	.	50.00
15 "	.	.	.	.	.	55.66
18 "	.	.	.	.	.	61.26
20 "	.	.	.	.	.	65.00



Style B, without Clock

4 Indications	.	.	.	.	.	\$28.15
6 "	.	.	.	.	.	31.90
8 "	.	.	.	.	.	35.65
10 "	.	.	.	.	.	39.40
12 "	.	.	.	.	.	43.15
15 "	.	.	.	.	.	46.90
18 "	.	.	.	.	.	52.50
20 "	.	.	.	.	.	56.24

All Alarms are made with Continuous Ringing Bells provided with Silent Test Switch to show that house is properly closed, Battery Test Switch to show that Bell and Battery is in perfect order, and General Switch to cut Alarm out during the day. Attachment can be made on either Style A or B Alarm so that when Alarm is operated it will light an Automatic Burner or Incandescent Lamp.

Attachment for Automatic Burner, \$4.00  
 " " Incandescent Lamp, 6.25



Style D, Flush, without Clock

Price of Style D Flush Annunciator same as Style B

## Style C Annunciator

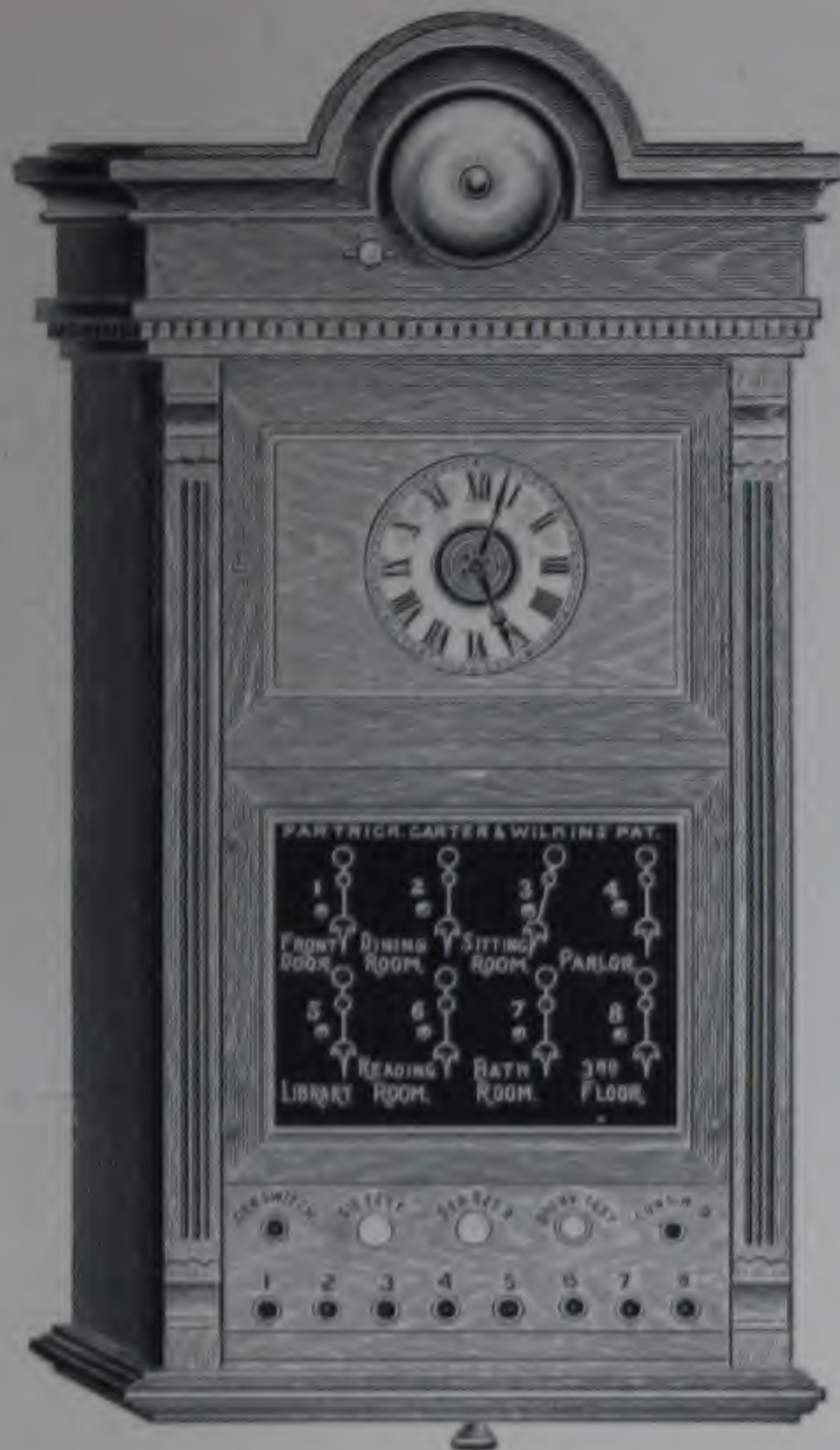
4 Number	.	.	.	.	.	\$16.30
6 "	.	.	.	.	.	18.80
8 "	.	.	.	.	.	21.30



Style C



## Burglar Alarm Annunciators, with Clock Attachments



Style A, with Clock Attachment



Style B, with Clock Attachment

NO. 1 ATTACHMENT.—Consists of a first-class Eight-day Movement, for automatically switching of alarm at any desired hour. No extra wiring required for this attachment.

NO. 3 ATTACHMENT.—Is the same as No. 1 with the addition of Servants' Call and an Automatic Set Back in which a button located in servant's room, on being pressed after call bell is rung, opens circuit on bell, no switch in servant's room being required. In this system, when the servant stops bell from ringing, it is automatically cut off until again reset the following night at alarm. In wiring for No. 3 Attachment run three wires from alarm to servant's room.

## Style A, with Clock Attachment

	With No. 1 Clock Attachment.	With No. 3 Clock Attachment.
4 Indications . . .	\$56.25	\$60.00
6 " . . .	60.00	63.75
8 " . . .	63.75	67.50
10 " . . .	67.50	71.25
12 " . . .	71.25	75.00
15 " . . .	76.90	80.65
18 " . . .	82.50	86.25
20 " . . .	86.25	90.00

## Style B, with Clock Attachment

	With No. 1 Clock Attachment.	With No. 3 Clock Attachment.
4 Indications . . .	\$49.40	\$53.15
6 " . . .	53.15	56.90
8 " . . .	56.90	60.65
10 " . . .	60.65	64.40
12 " . . .	64.40	68.15
15 " . . .	68.15	71.90
18 " . . .	73.75	77.50
20 " . . .	77.50	81.25

Attachment can be made on either Style A or B Alarm, that when the Alarm is operated it will light an Automatic Burner or any Incandescent Lamp.

Price for Gas Lighting Attachment, . . . \$4.00

Incandescent Lamp Attachment, . . . \$6.25



### Elevator Annunciators (Standard)

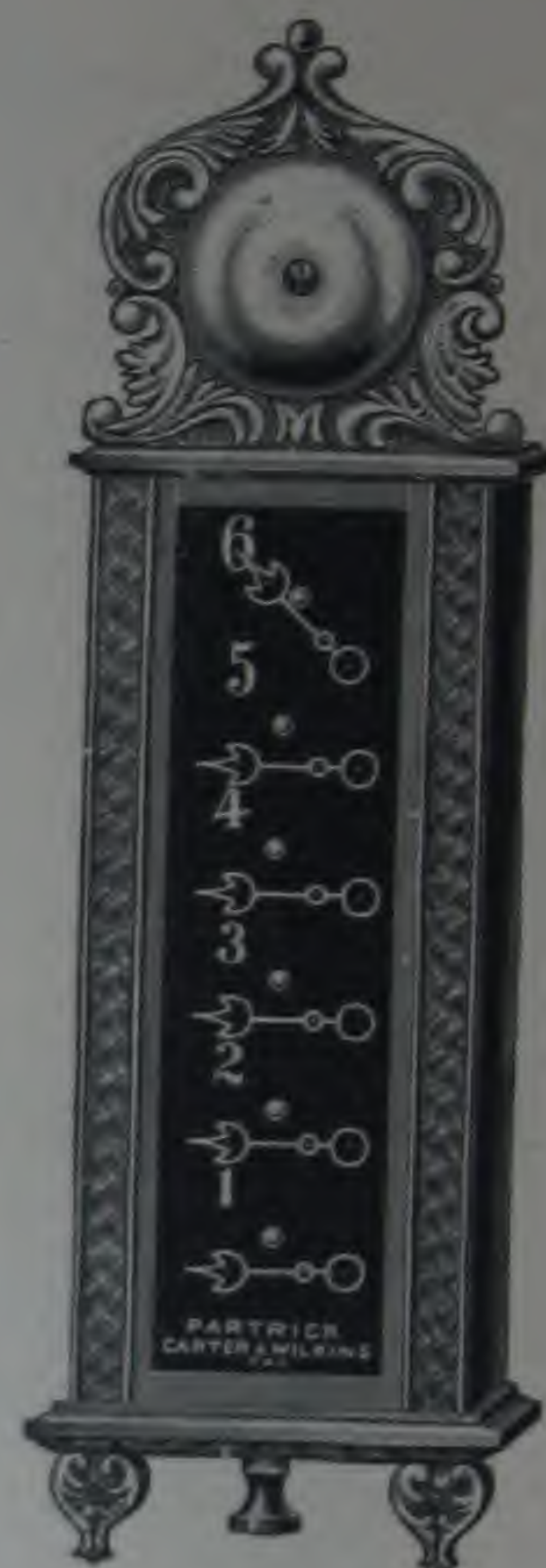


Wood Case

	Wood Case.	Metal Case.
4 Number . . . . .	\$9.40	\$21.90
5 " . . . . .	10.00	22.50
6 " . . . . .	11.24	23.74
7 " . . . . .	12.50	27.50
8 " . . . . .	13.74	28.74
9 " . . . . .	15.00	30.00
10 " . . . . .	16.24	35.00
12 " . . . . .	18.74	37.50
14 " . . . . .	21.24	40.00
16 " . . . . .	24.00	45.00

Double row from 10 numbers up.

Metal Cases above 16 numbers will be furnished  
in Sheet Metal.



Cast Metal Case

### Up and Down Elevator Annunciators

In this form of Annunciator there are two separate re-setting knobs for re-setting the Up and Down Indications as required.

Made in any sizes, and of Wood or Metal Cases.

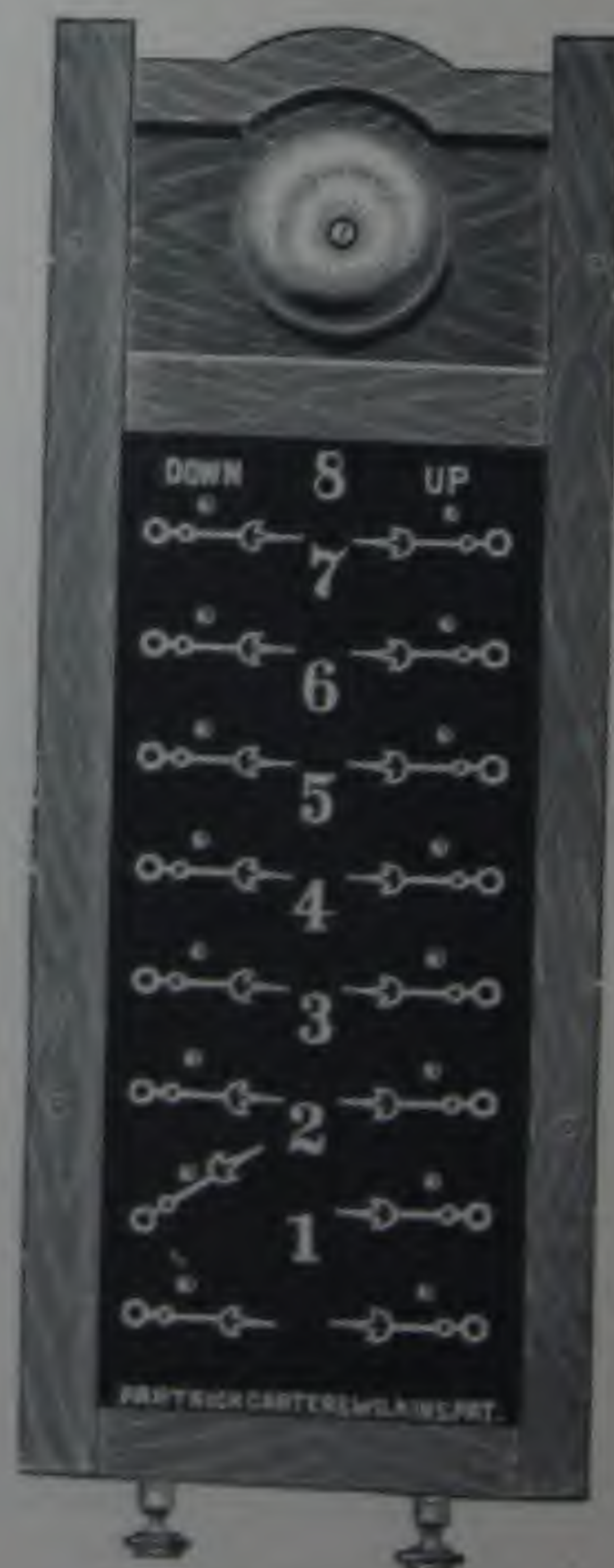


Up and Down Push

Antique copper face,  
wood back, \$2.00

6 Number and above, Wood Case,  
Per Number, . . . . . \$3.74

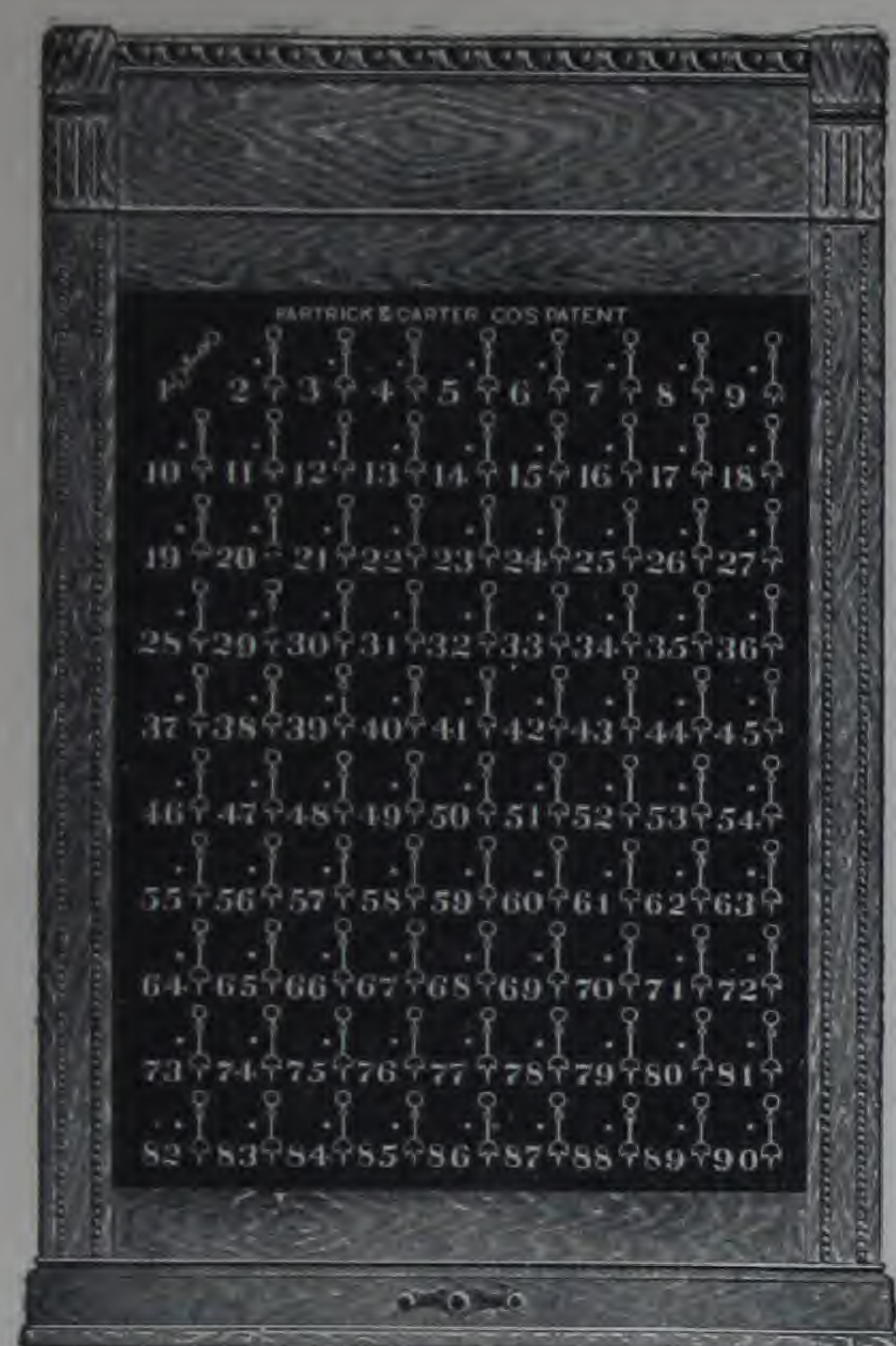
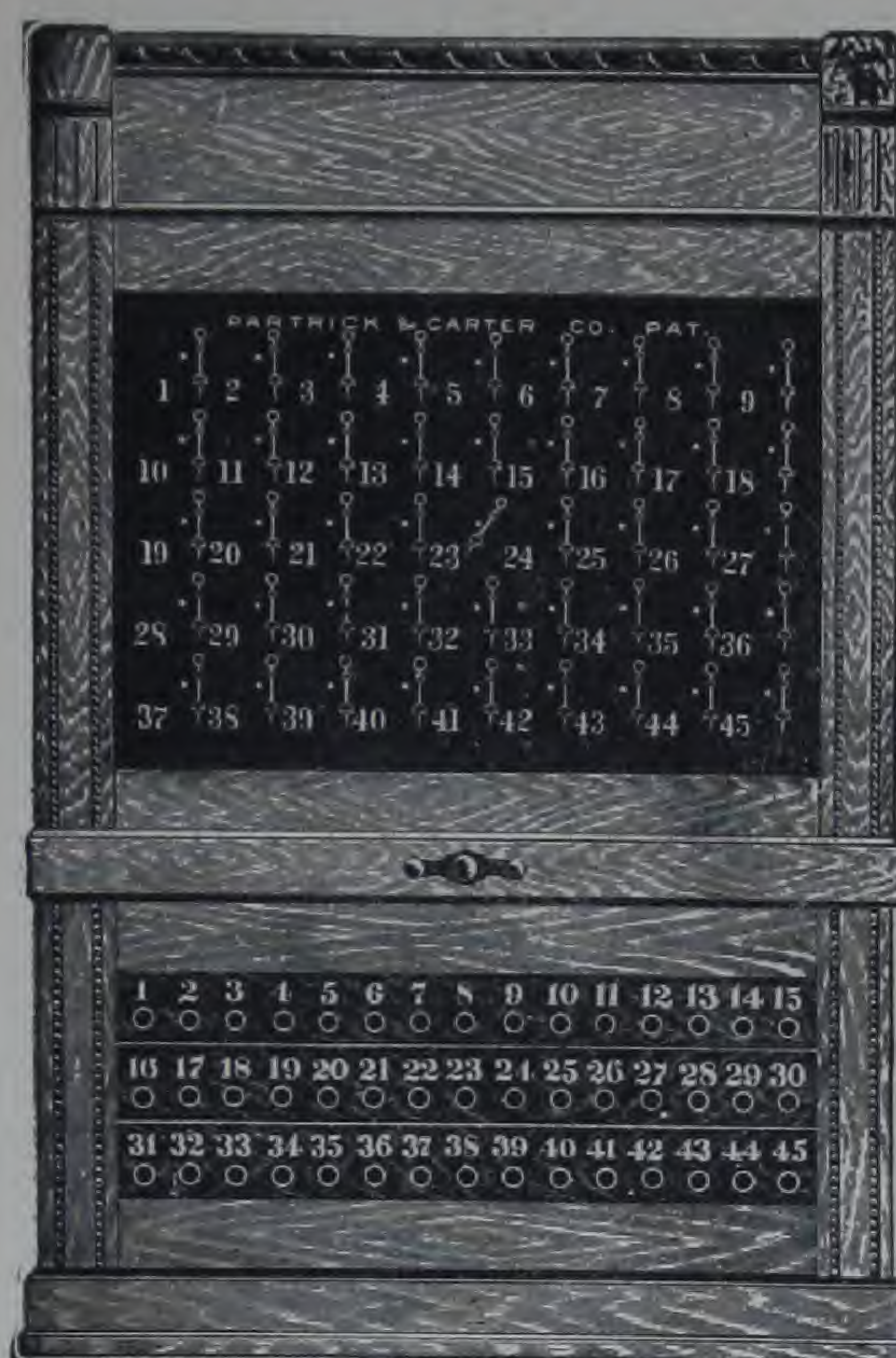
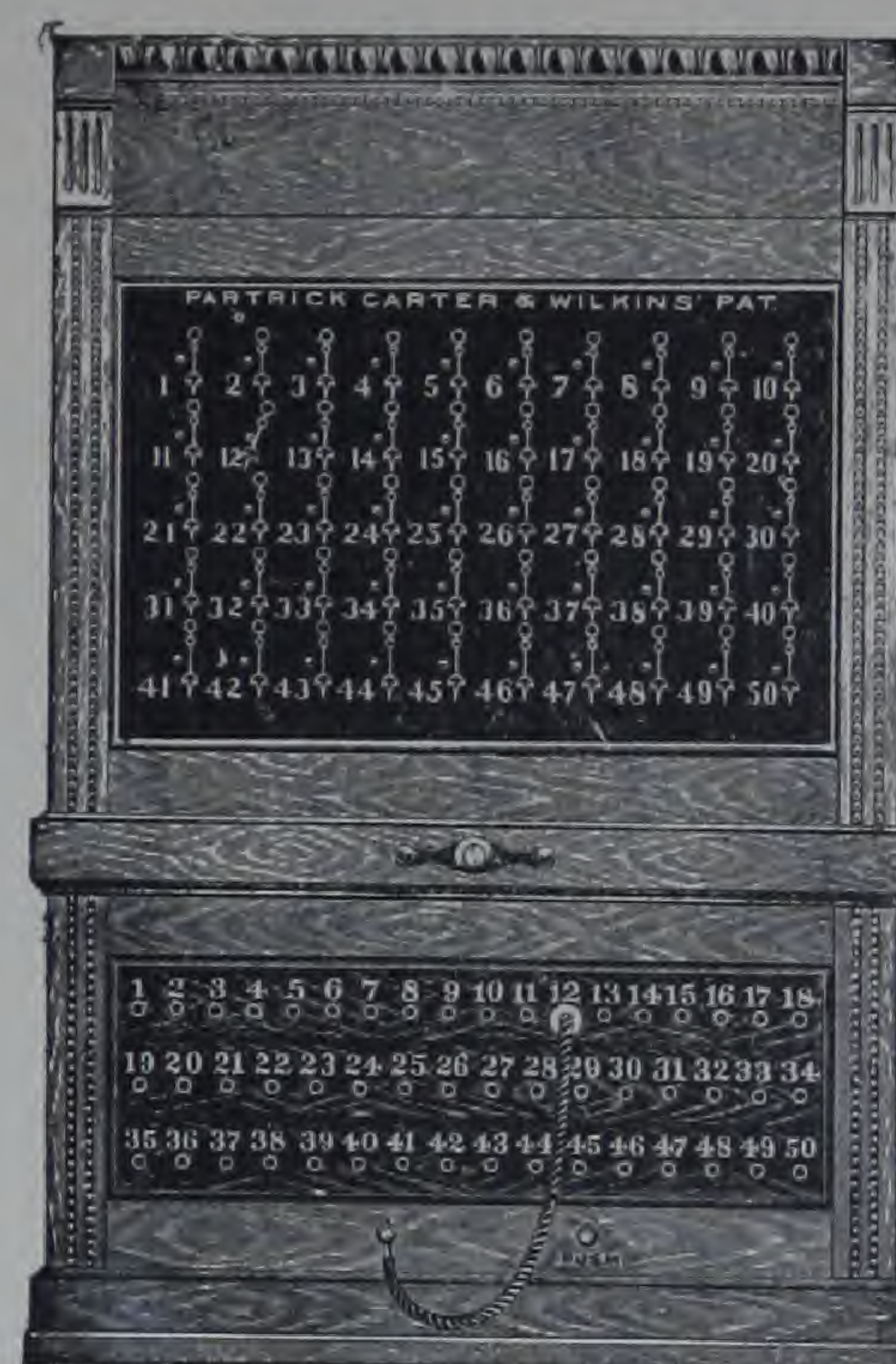
6 Number and above, Metal Case,  
Per Number, . . . . . \$5.74



Up and Down



## Style E Annunciators

Without Return Call  
Board AttachedWith Return Call  
Board Attached

Telephone Annunciator

	Without Return Call Board Attached.	Return Call.	Telephone Annunciator.
40 . . . . .	\$50.00	\$72.00	\$72.00
45 . . . . .	56.24	81.00	81.00
50 . . . . .	62.50	90.00	90.00
54 . . . . .	67.50	95.00	95.00
60 . . . . .	75.00	108.00	108.00
70 . . . . .	87.50	126.00	126.00
80 . . . . .	100.00	144.00	144.00
90 . . . . .	112.50	162.00	162.00
100 . . . . .	125.00	175.00	175.00

Annunciators requiring numbers between those specified will be charged for at the rate per number given for the next highest number.

Simplified Fire Alarm Attachment placed on above Return Call or Telephone Annunciator . . . . .	\$17.00
Intercommunicating Plugs for Telephone Annunciator Lamp Signal, per set . . . . .	8.00
Outside Exchange Switch on Telephone Annunciators . . . . .	15.00

Prices on larger Annunciators furnished on application.



## Stamped Push Buttons

Polished Brass or Oxidized—Loose Backs

No. 25750

Size,  $4\frac{1}{4} \times 1\frac{3}{8}$ "

Each . . . \$0.50  
Dozen . . . 4.50

No. 25753

Size,  $4 \times 2$ "

Each . . . \$0.50  
Dozen . . . 4.50

No. 25795

Size,  $4 \times 1\frac{3}{8}$ "

Each . . . \$0.50  
Dozen . . . 4.50

No. 25753  $\frac{3}{4}$ Size,  $4 \times 2$ "

Each . . . \$1.00

No. 25797

Size,  $4 \times 2$ "

Each . . . \$0.50  
Dozen . . . 4.50

No. 25765

Size,  $4 \times 2$ "

Each . . . \$0.50  
Dozen . . . 4.50

No. 25755

Size,  $4 \times 2$ "

Each . . . \$0.50  
Dozen . . . 4.50

No. 25796

Size,  $4 \times 2$ "

Each . . . \$0.50  
Dozen . . . 4.50

No. 25770

Size,  $4 \times 2$ "

Each . . . \$0.50  
Dozen . . . 4.50



## Stamped Push Buttons

Polished Brass or Oxidized—Loose Backs

No. 25780



Size, 4 x 2"

Each . . . \$0.50  
Dozen . . . 4.50

No. 25761



Size, 4 3/4 x 2"

Each . . . \$0.50  
Dozen . . . 4.50

No. 25785



Size 5 1/4 x 2"

Each . . . \$0.50  
Dozen . . . 4.50

No. 25791



Size, 4 3/4 x 2"

Each . . . \$0.50  
Dozen . . . 4.50

No. 25790



Size, 4 3/4 x 2 1/4"

Each . . . \$0.50  
Dozen . . . 4.50

No. 25760



Size, 4 3/4 x 2"

Each . . . \$0.50  
Dozen . . . 4.50

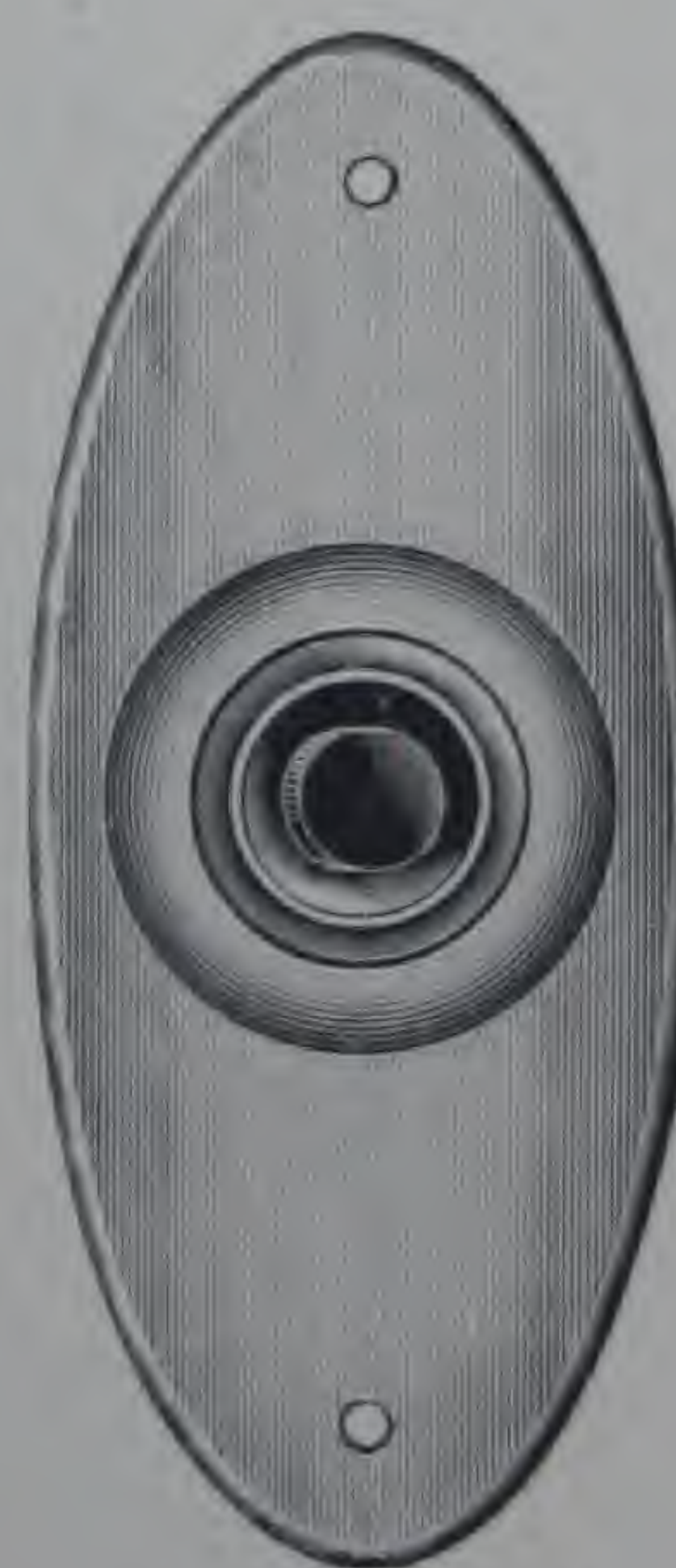
No. 25792



Size, 4 3/4 x 2"

Each . . . \$0.50  
Dozen . . . 4.50

No. 25793



Size, 4 3/4 x 2"

Each . . . \$0.50  
Dozen . . . 4.50

No. 25794



Size, 4 3/4 x 2"

Each . . . \$0.50  
Dozen . . . 4.50



## Cast Push Buttons

Polished Brass or Oxidized—Loose Backs

No. 25808

Size,  $4\frac{1}{2} \times 1\frac{1}{4}$ "

Each . . . \$0.75  
Dozen . . . 8.00

No. 25828

Size,  $4\frac{3}{8} \times 2\frac{1}{8}$ "

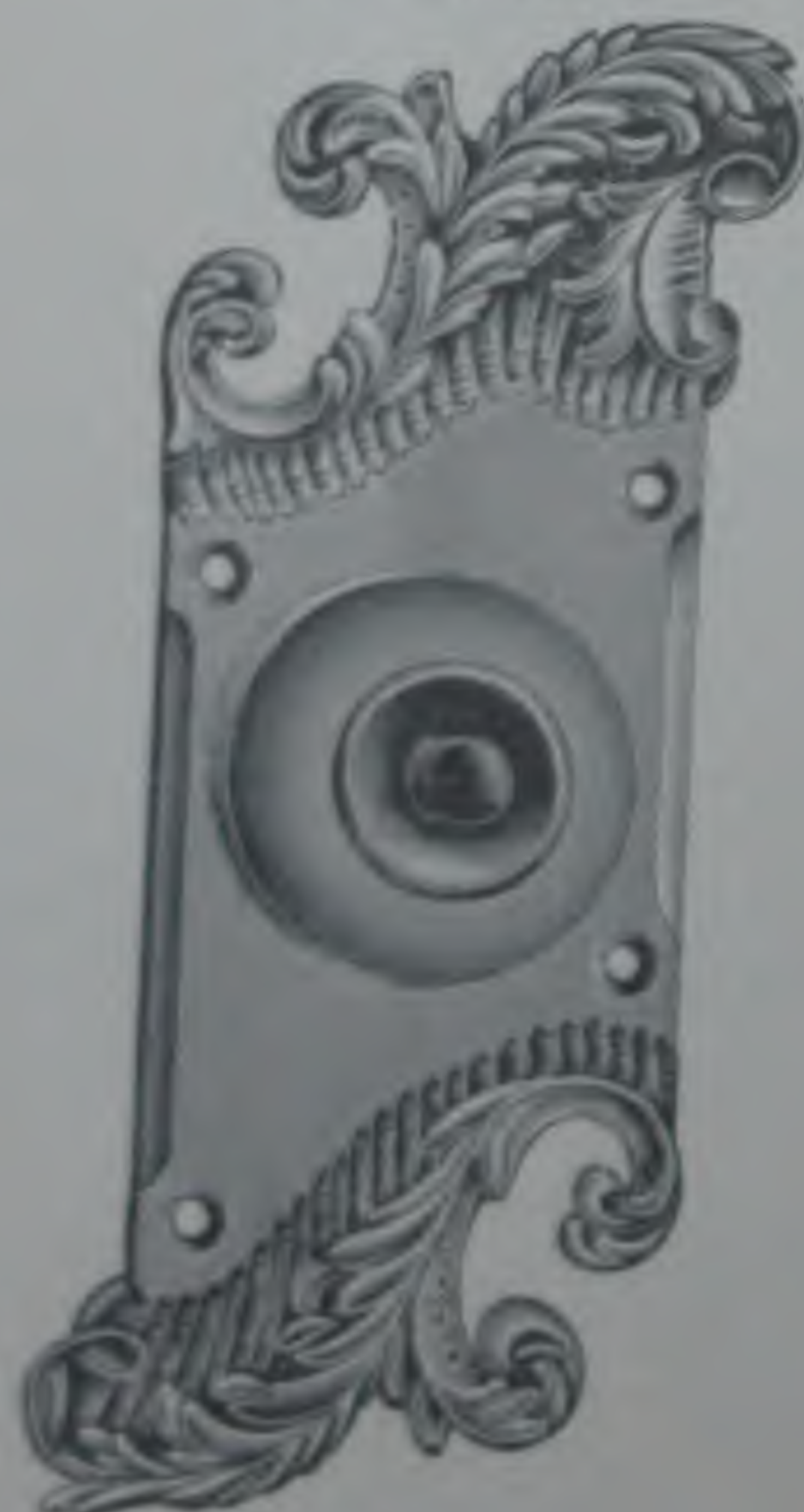
Each . . . \$0.90  
Dozen . . . 9.00

No. 25825

Size,  $3\frac{3}{4} \times 1\frac{1}{4}$ "

Each . . . \$0.60  
Dozen . . . 6.00

No. 26032

Size,  $7 \times 3$ "

Each . . . \$1.00  
Dozen . . . 10.00

No. 25805

Size,  $4\frac{1}{2} \times 1\frac{1}{4}$ "

Each . . . \$0.60  
Dozen . . . 6.00

No. 25811

Size,  $3 \times 1\frac{1}{4}$ "

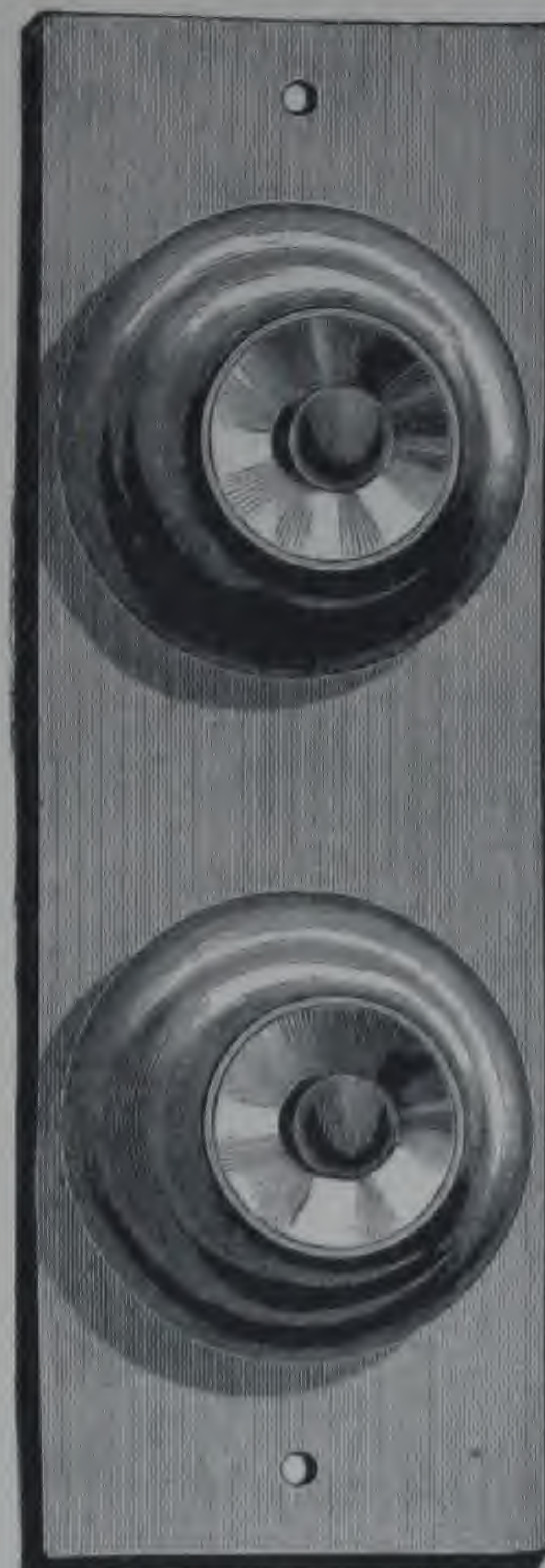
Each . . . \$0.60  
Dozen . . . 6.00



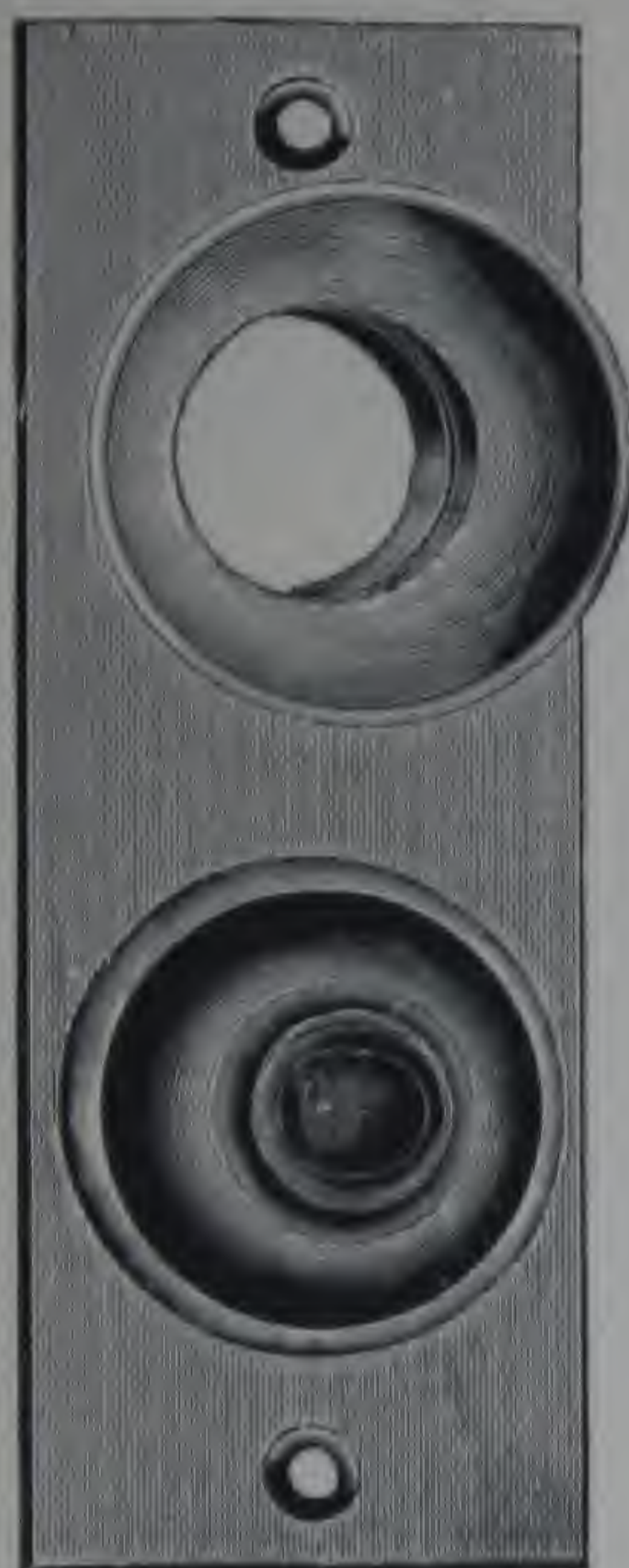
## Cast Push Buttons

Polished Brass or Oxidized—Loose Backs

No. 25909



No. 25878

Size,  $5\frac{1}{2} \times 2''$ 

Each	.	.	.	\$1.30
Dozen	.	.	.	12.00

No. 25950

Size,  $4\frac{1}{4} \times 2\frac{3}{8}''$ 

Each	.	.	.	\$0.70
Dozen	.	.	.	7.50

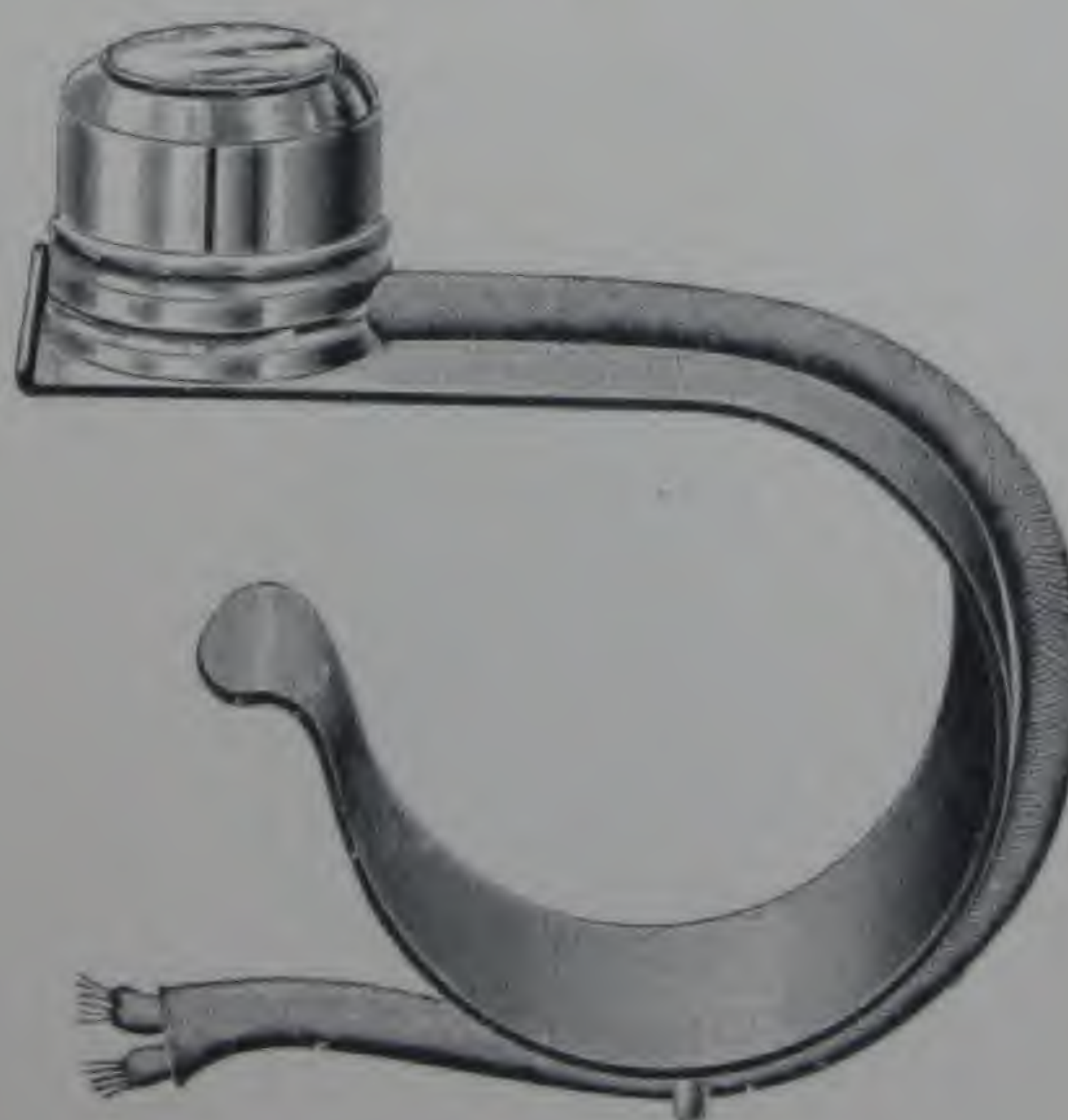
Each.

2 Pushes, Size $5\frac{3}{4} \times 2\frac{1}{4}''$ ,	\$1.50
3 " " $7\frac{3}{4} \times 2\frac{1}{4}''$ ,	2.00
4 " " $10 \times 2\frac{1}{4}''$ ,	2.50

No. 25862

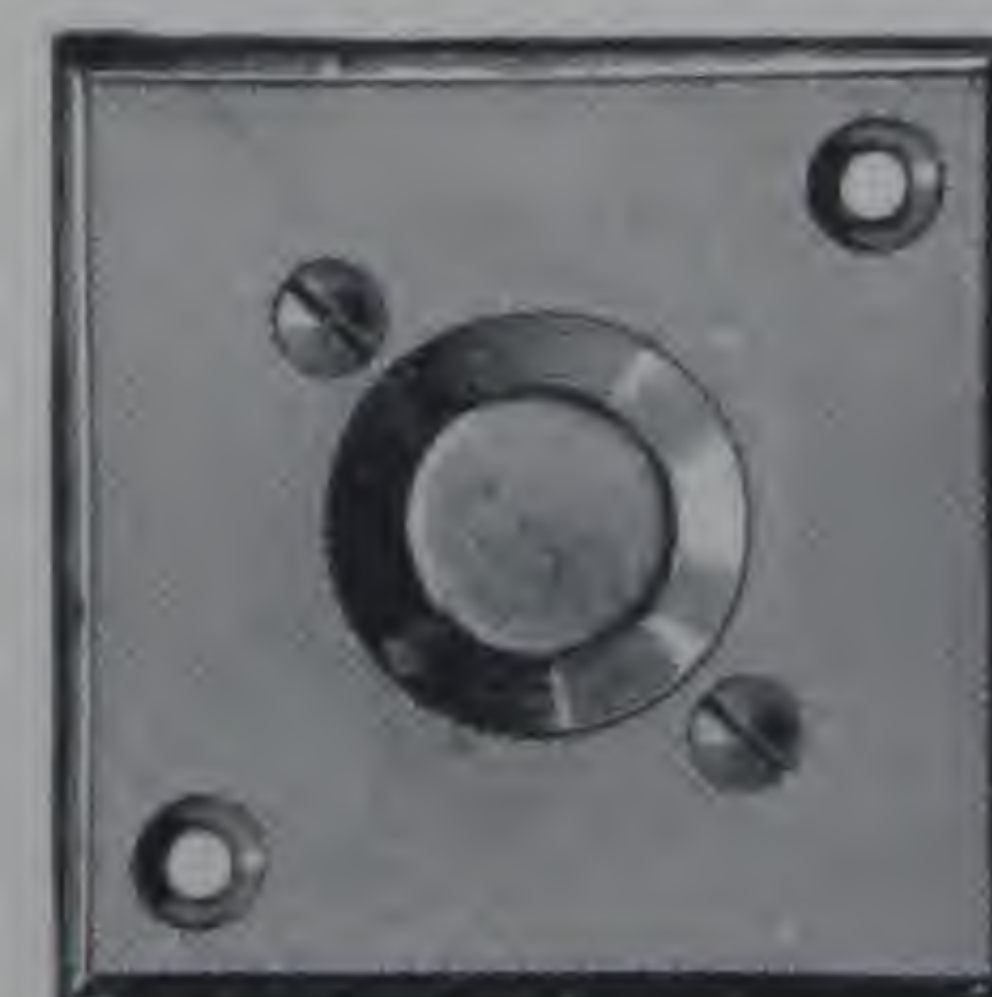
5 x  $1\frac{3}{4}''$  Convex

Each.	.	.	.	
Fits 2" Round Moulding,				\$1.00

Table Clamp  
(With Push)

Each	.	.	.	\$0.60
Dozen	.	.	.	5.25

Square Metal Pushes



	Each.	Dozen.
Square .	\$0.36	\$4.08
Diamond Shape	0.60	6.00
Mats for Square Push, each,	0.14	

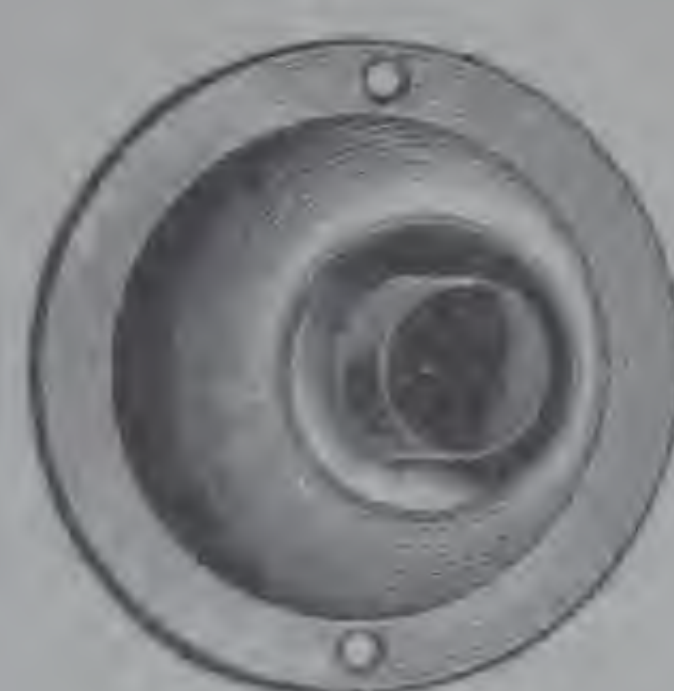


## Stamped Push Buttons

Polished Brass or Oxidized

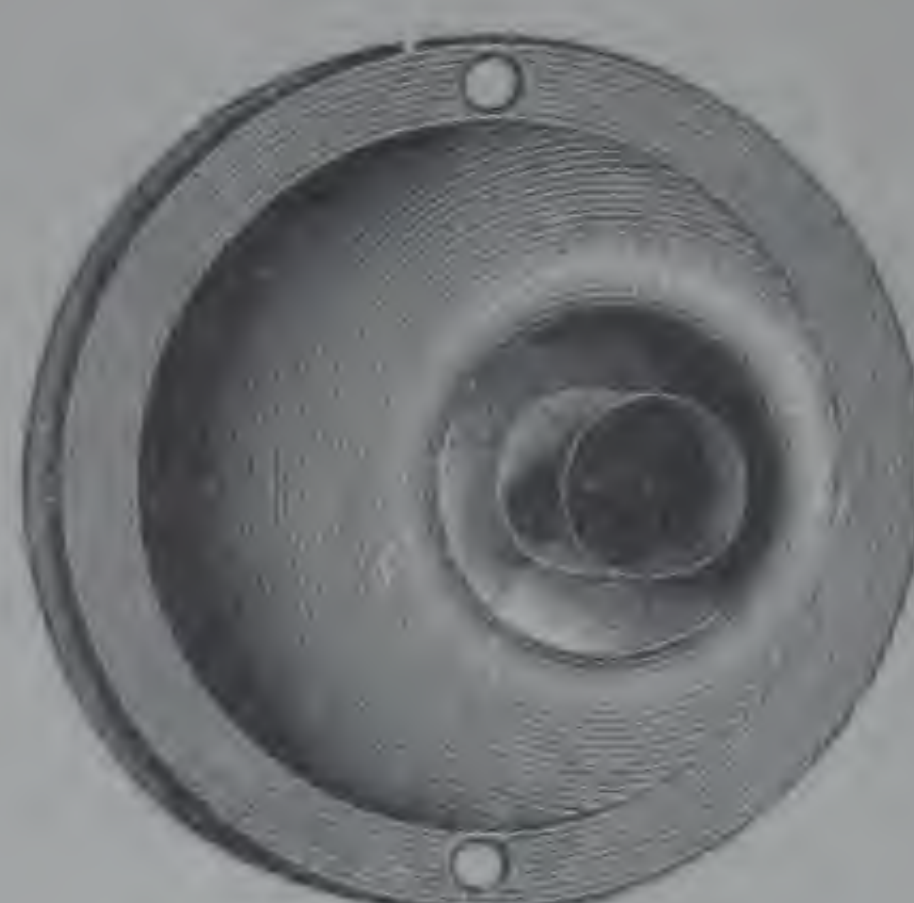
## SOLID CAPS

No. 25575

Size,  $1\frac{3}{4}$ "

Each . . . \$0.20  
Dozen . . . 2.00

No. 25578

Size,  $2\frac{3}{8}$ "

Each . . . \$0.20  
Dozen . . . 2.00

No. 25577

Size,  $1\frac{3}{4}$ "

Each . . . \$0.20  
Dozen . . . 2.00

No. 25587

Size,  $2\frac{3}{8}$ "

Each . . . \$0.20  
Dozen . . . 2.00

No. 25585

Size,  $2\frac{3}{8}$ "

Each . . . \$0.20  
Dozen . . . 2.00

No. 25579

Size,  $2\frac{3}{8}$ "

Each . . . \$0.20  
Dozen . . . 2.00

## SCREW CAPS

No. 25702

Size,  $2\frac{3}{8}$ "

Each . . . \$0.40  
Dozen . . . 4.00

No. 25701

Size,  $2\frac{3}{8}$ "

Each . . . \$0.40  
Dozen . . . 4.00

No. 25706

Size,  $2\frac{3}{8}$ "

Each . . . \$0.40  
Dozen . . . 4.00



## Desk Pushes

Style H

Fits  $\frac{1}{2}$ " hole

Each . . . \$0.22

Style G

Fits  $\frac{1}{2}$ " hole

Each . . . \$0.20

Style K

Fits  $\frac{3}{8}$ " hole

Each . . .	\$0.26
$\frac{3}{4}$ " hole . . .	0.35

## Wood Bases

Style I

Fits  $\frac{3}{8}$ " hole

Each . . . \$0.22



For Styles I and K

Each . . . \$0.12

Style F

Fits  $\frac{3}{8}$ " hole

Each . . . \$0.20

High Voltage Push



For 110 Volt Circuits

Each . . . \$1.80

Noscru



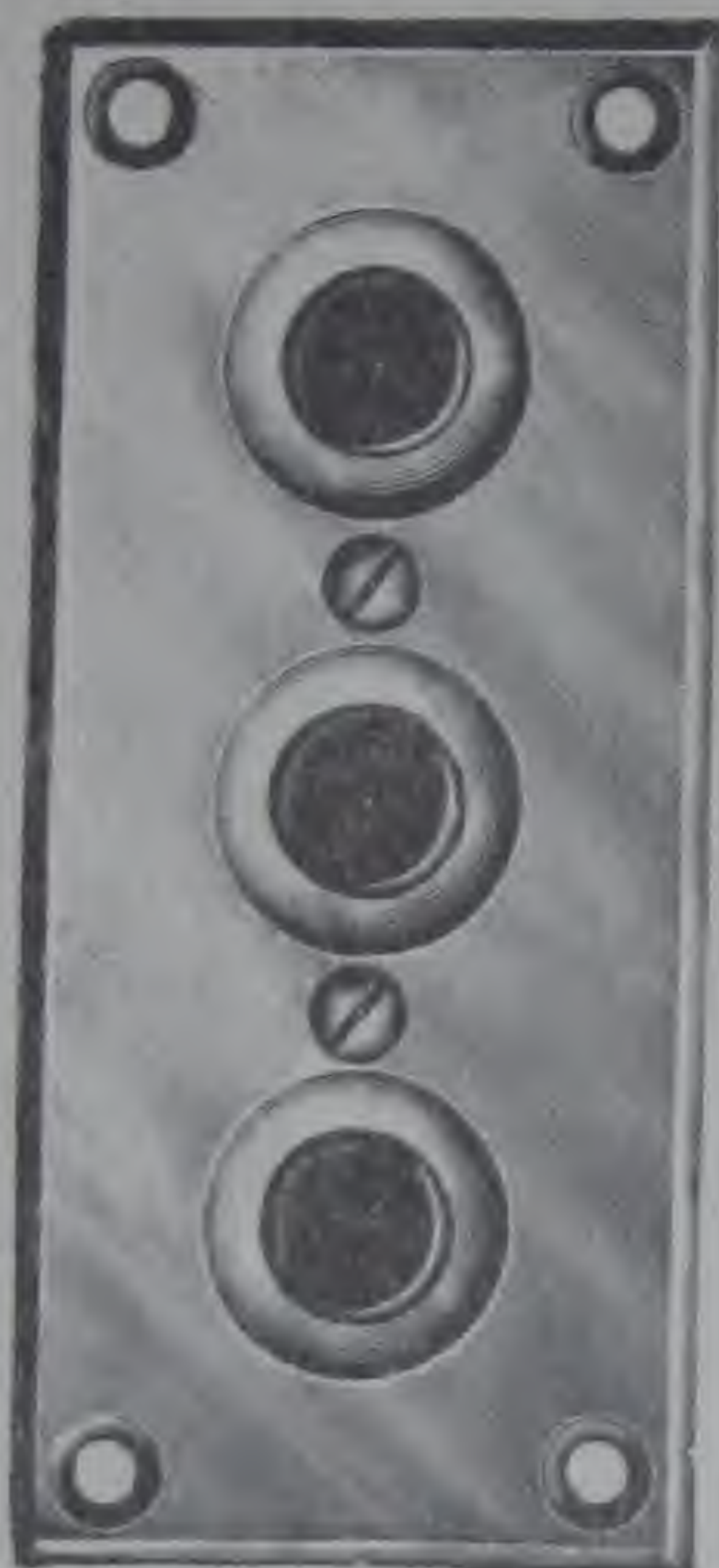
No. 1, fits $\frac{3}{4}$ " hole .	\$0.25
" 2 " $\frac{5}{8}$ " " .	.25
" 3 " $\frac{3}{8}$ " " .	.25

Style J

Fits  $\frac{1}{2}$ " hole

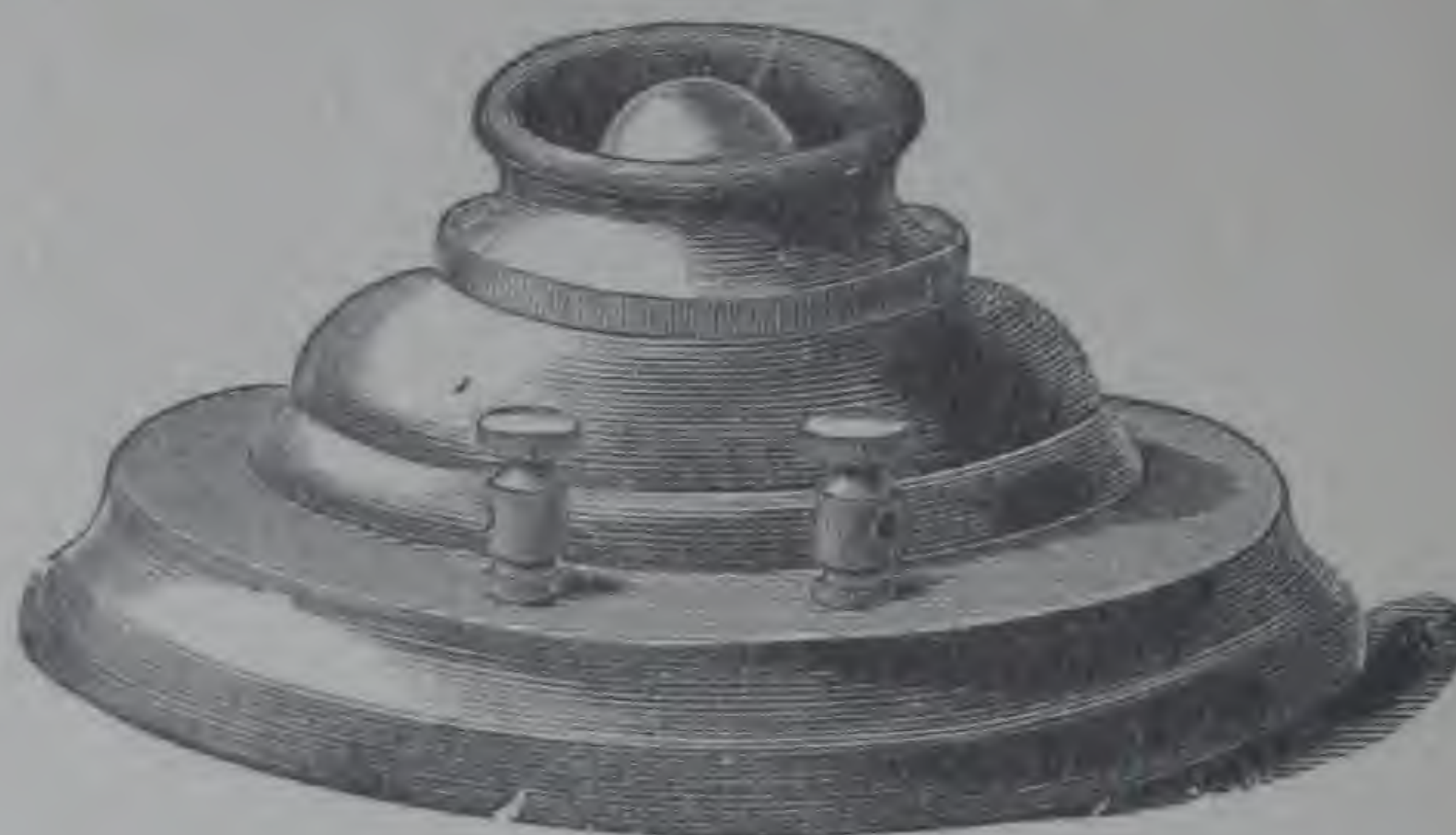
Each . . . \$0.24



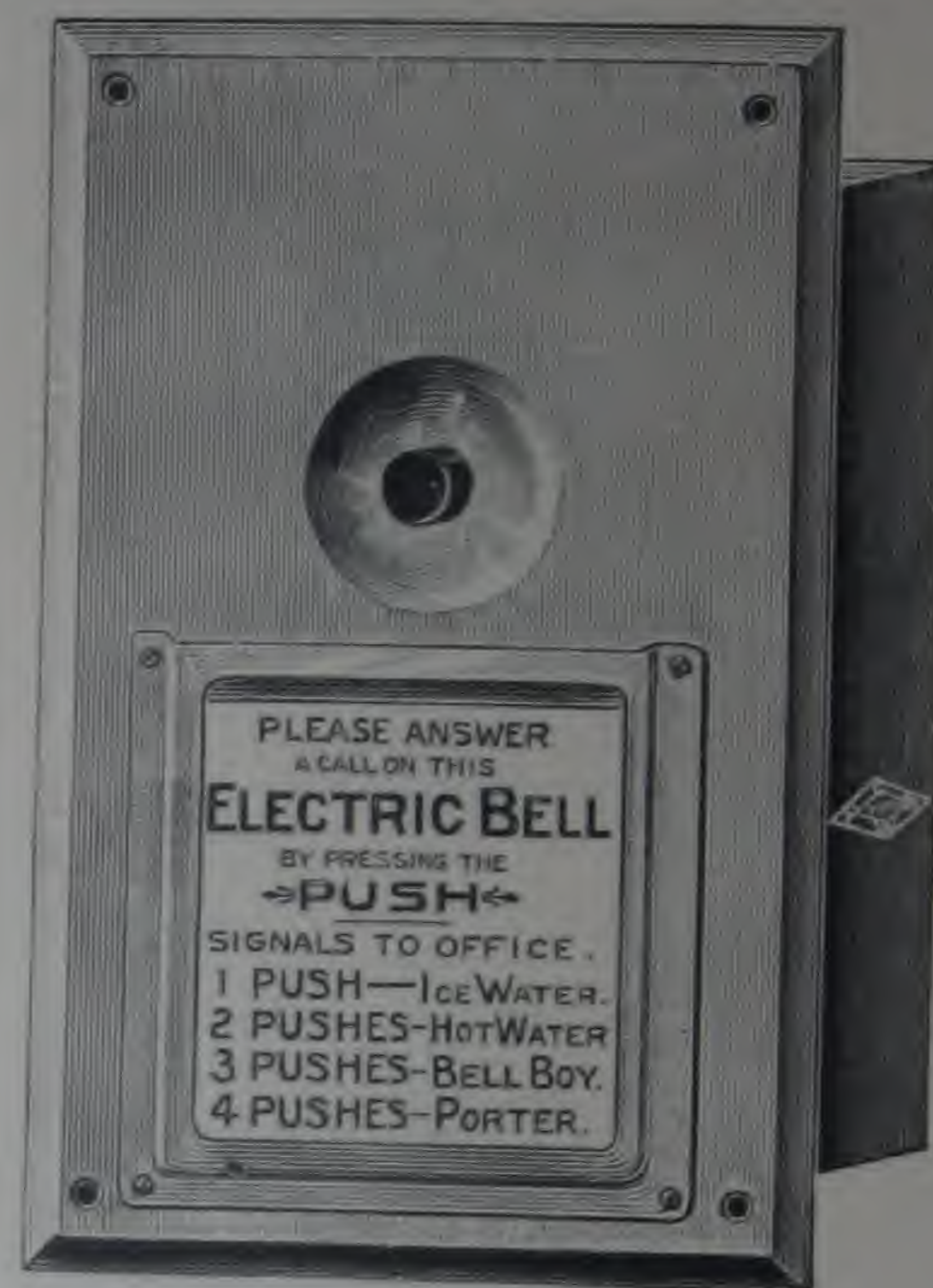
Compound Nickel  
Pushes

3 Button	\$0.70
4 "	.90
5 "	1.00
6 "	1.20

Extension Push Button



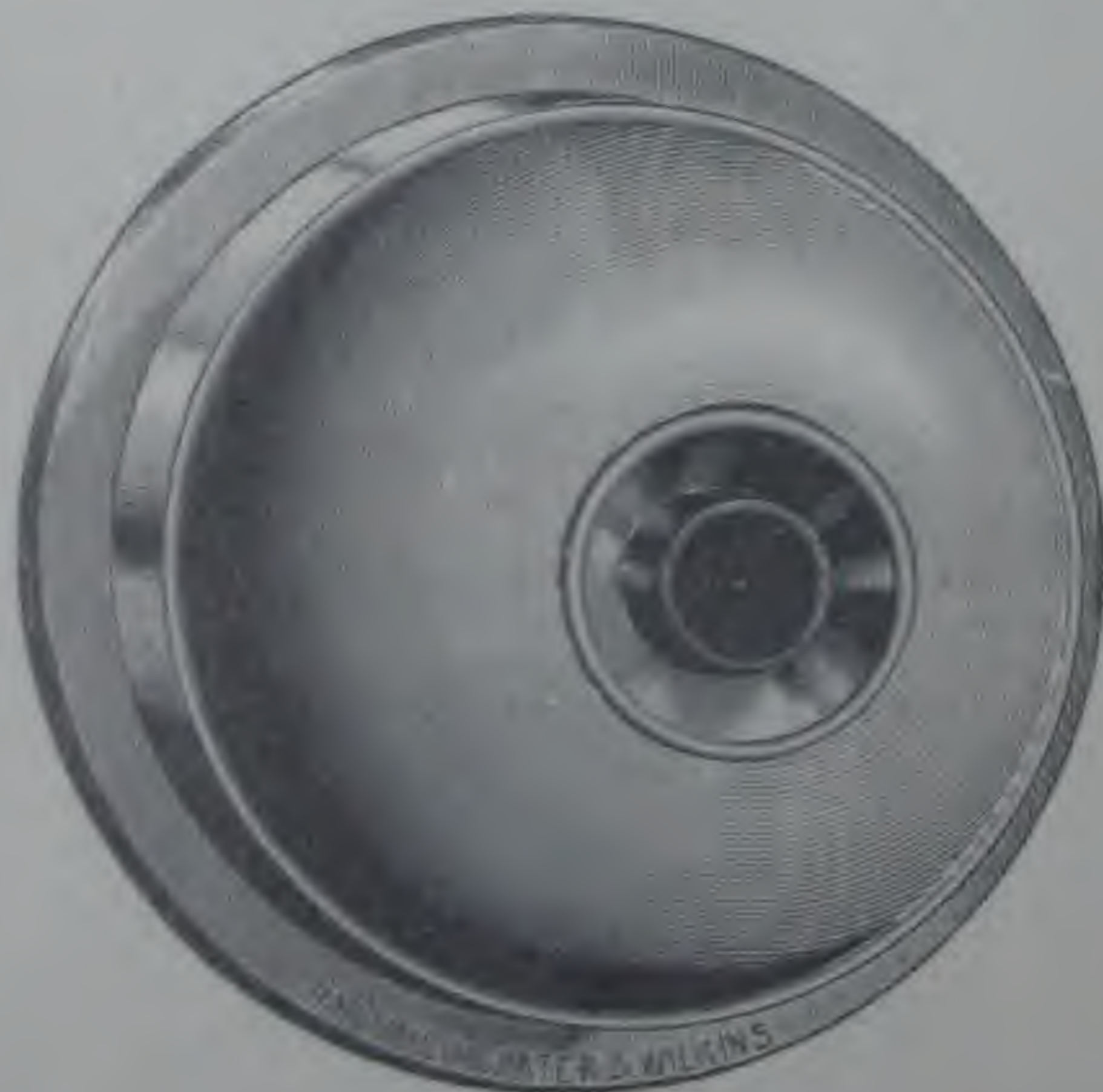
Each . . . \$0.36

Flush Combination Bell  
and Push

Each . . . \$2.20

Compound Wood  
Pushes

3 Button	\$1.10
4 "	1.30
5 "	1.70
6 "	2.00

Combination Buzzer  
and Push

Each . . . \$1.50

Combination Bell  
and Push

Each . . . \$1.40



## Push Buttons

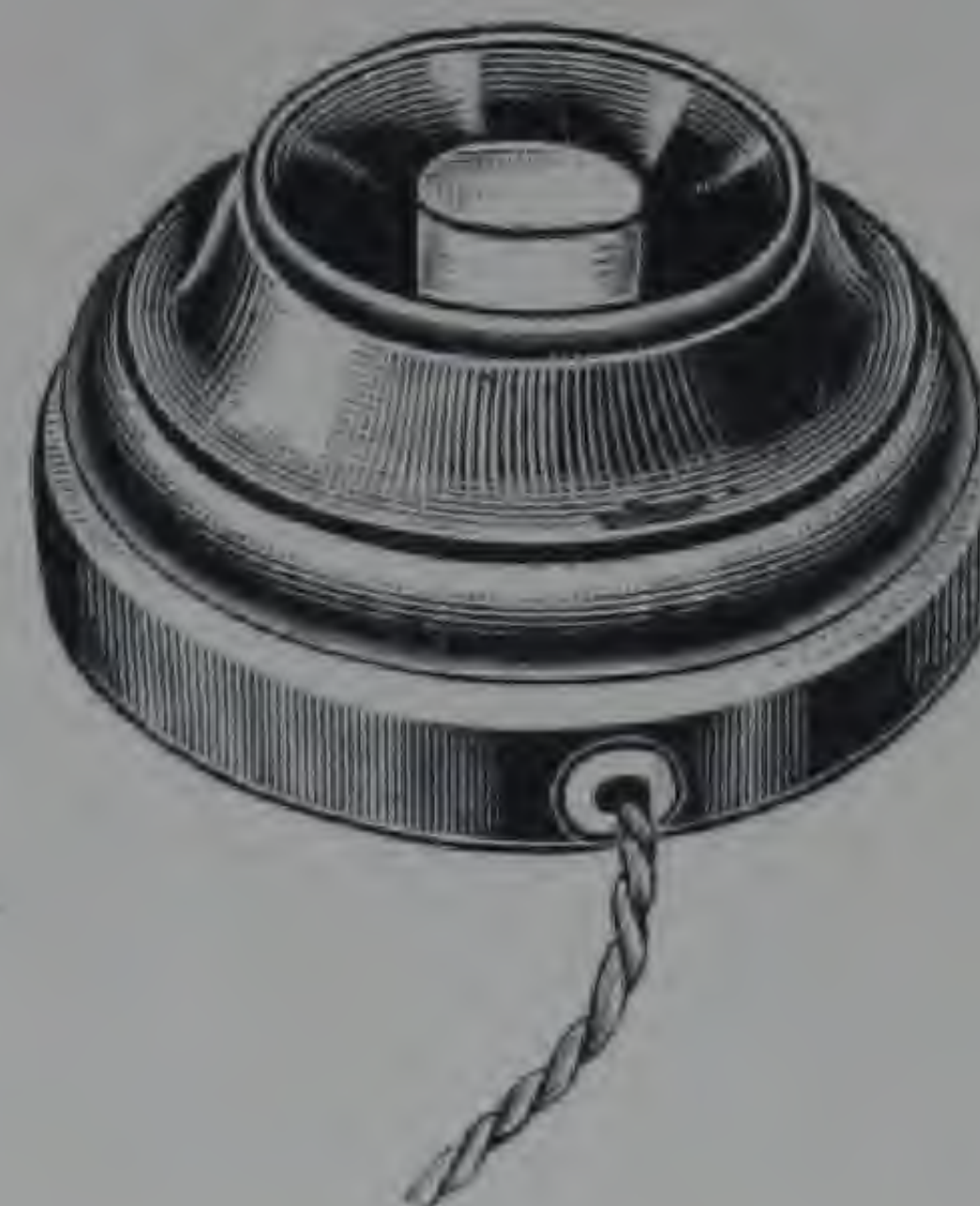
No. 16. Wood Push Button



Regular

Each	.	.	.	.	.	\$0.10
100 or more	.	.	.	.	.	.09

Loaded Base Wood Push Button



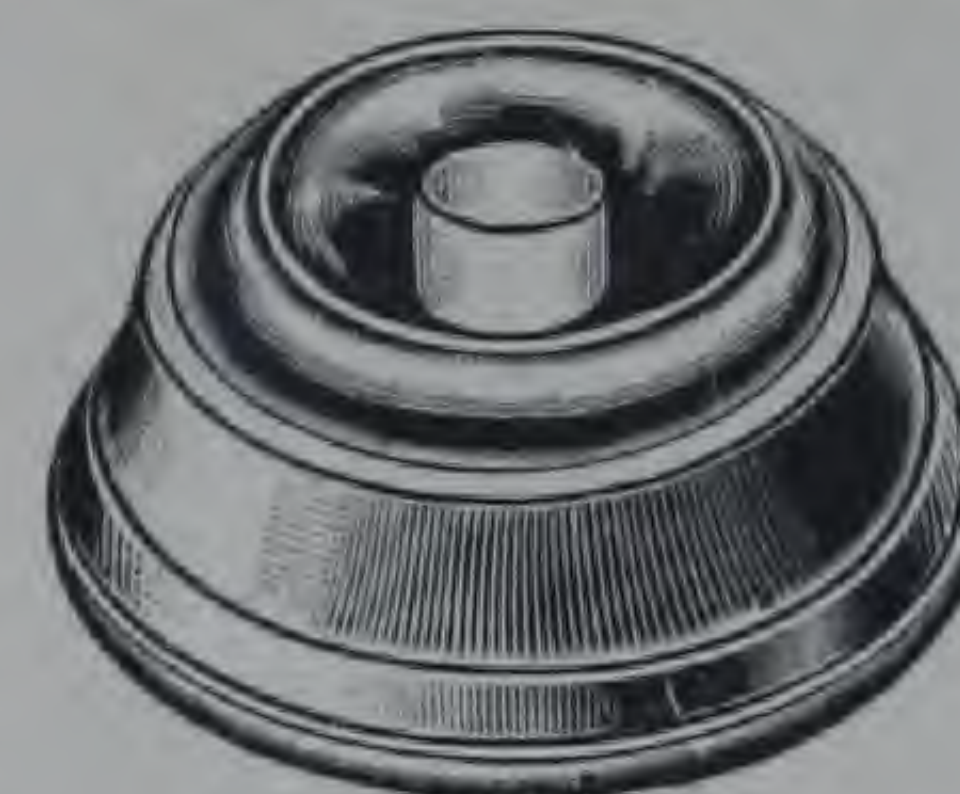
Each	.	.	.	.	.	\$0.50
------	---	---	---	---	---	--------

Midget Wood Push Button



Each	.	.	.	.	.	\$0.10
100 or more	.	.	.	.	.	.09

Special Wood Pushes



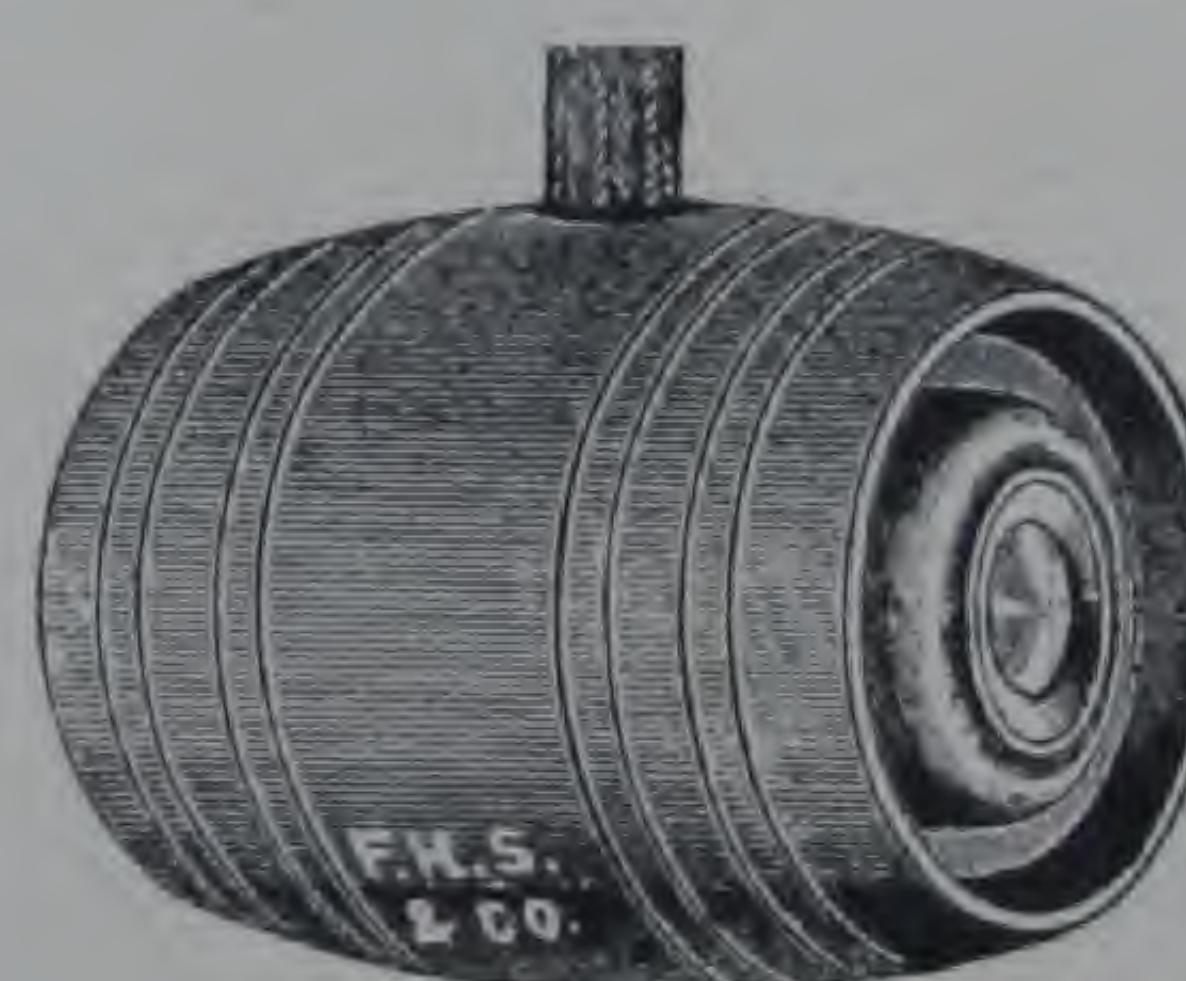
Two Point	.	.	.	.	.	\$0.30
Return Call	.	.	.	.	.	.24

Push Button Backs



Each	.	.	.	.	.	\$0.08
------	---	---	---	---	---	--------

Barrel Push



2 Buttons

Each	.	.	.	.	.	\$0.80
------	---	---	---	---	---	--------

Push Button Centers



Assorted Sizes

Each	.	.	.	.	.	\$0.02
100 lots.	.	.	.	.	.	1.60

Name Plates



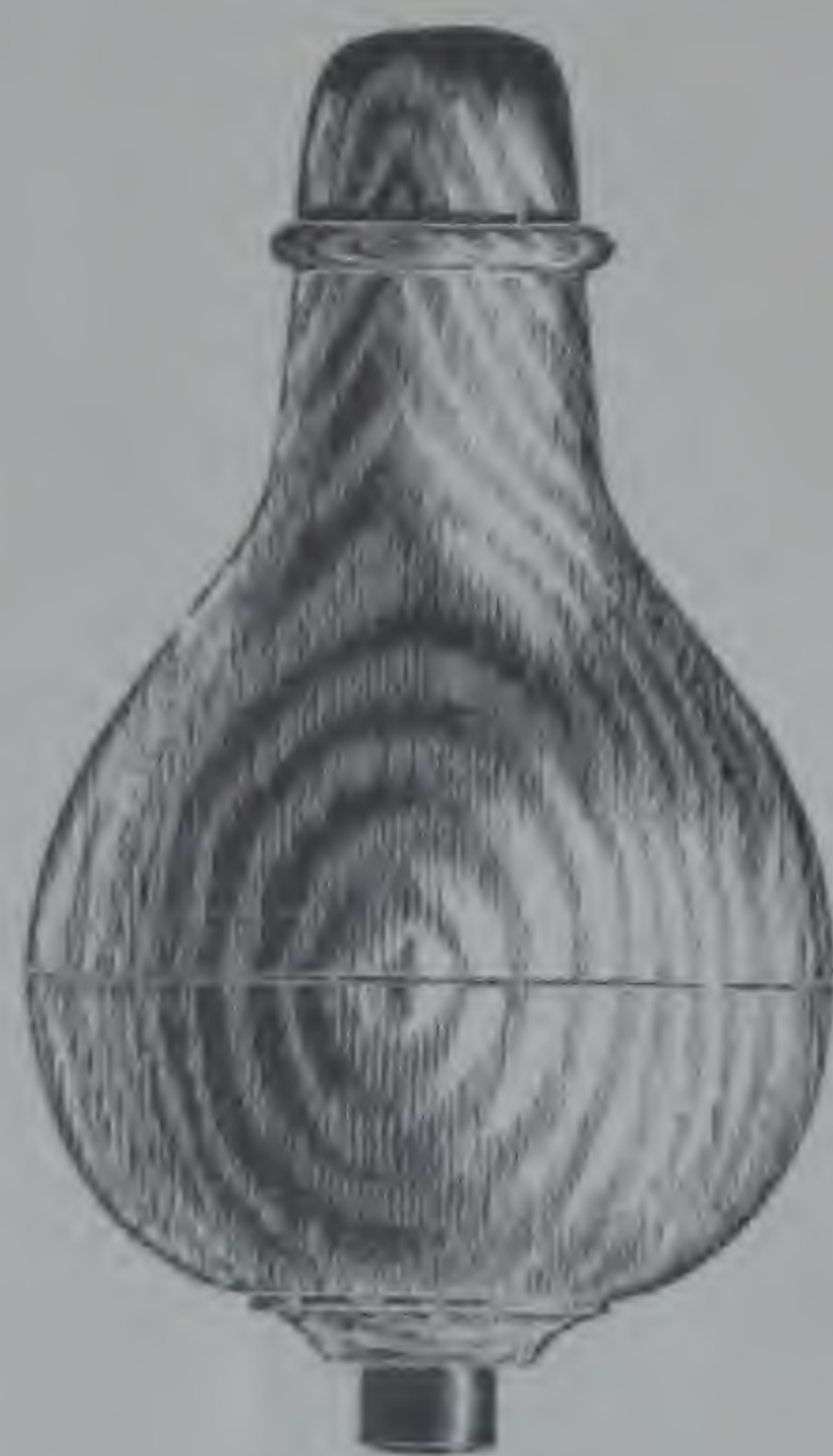
Each	.	.	.	.	.	\$0.24
------	---	---	---	---	---	--------



## Pear Pushes

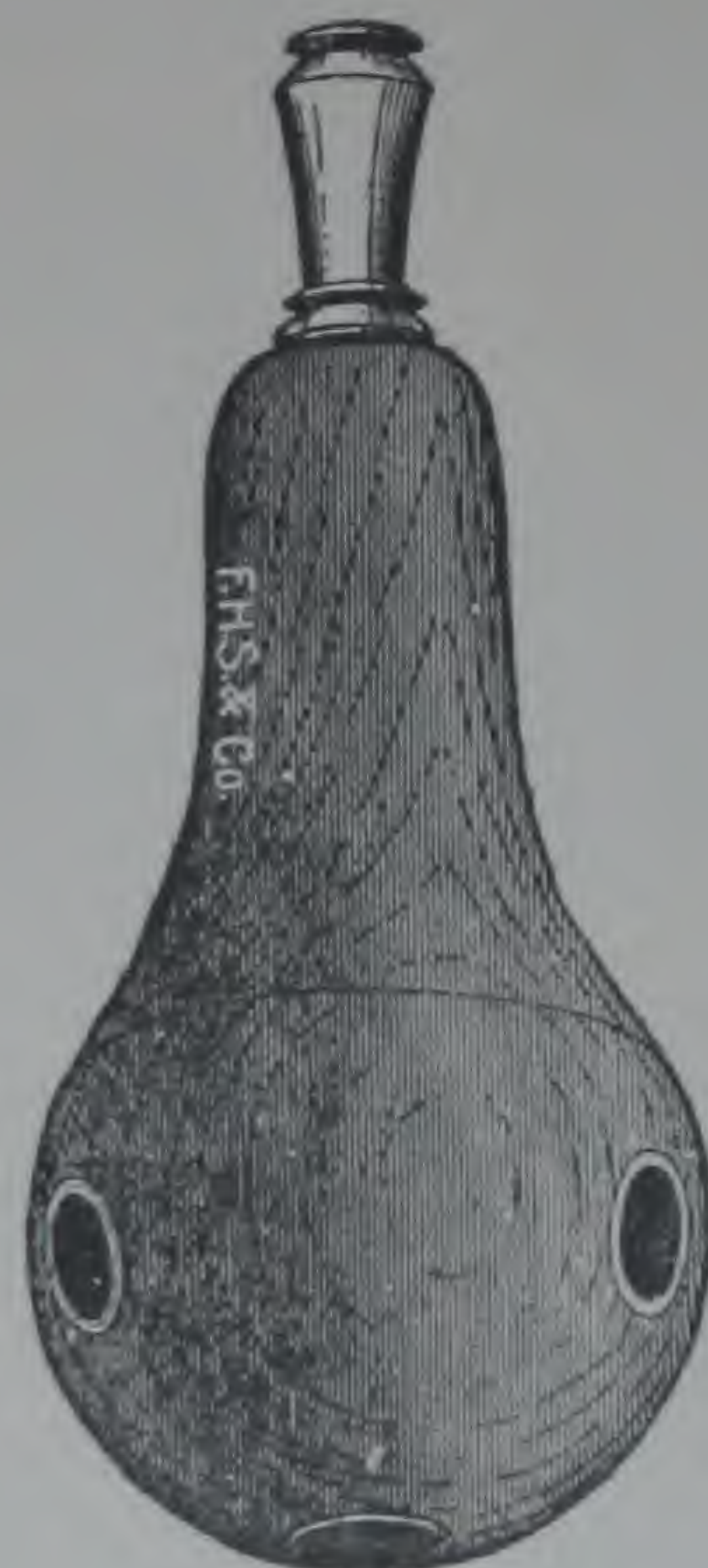
## Compound Pear Push

Pear Push



No. 20

Each . . . \$0.30



2	Button	.	.	\$1.20
3	"	.	.	1.60
4	"	.	.	2.00
5	"	.	.	2.40

Wood Presselle



Each . . . \$0.24

Pear Push



No. 21

Each . . . \$0.35

Wood Rosettes



Each . . . \$0.14

Pear Push



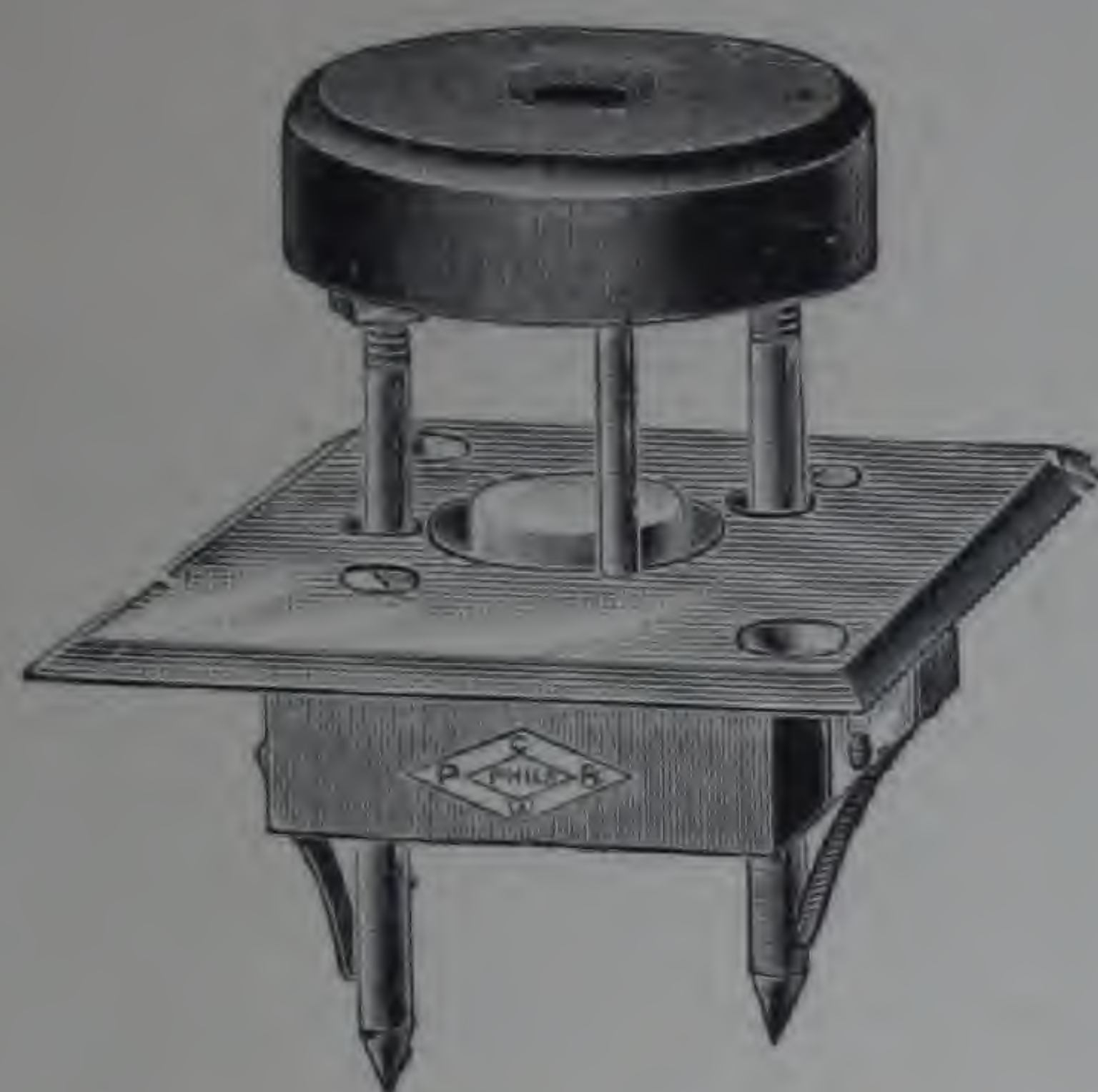
No. 22

Each . . . \$0.40



## Wall and Floor Pushes

Combination Wall Push



Each . . . . . \$0.90

Movable Foot Push



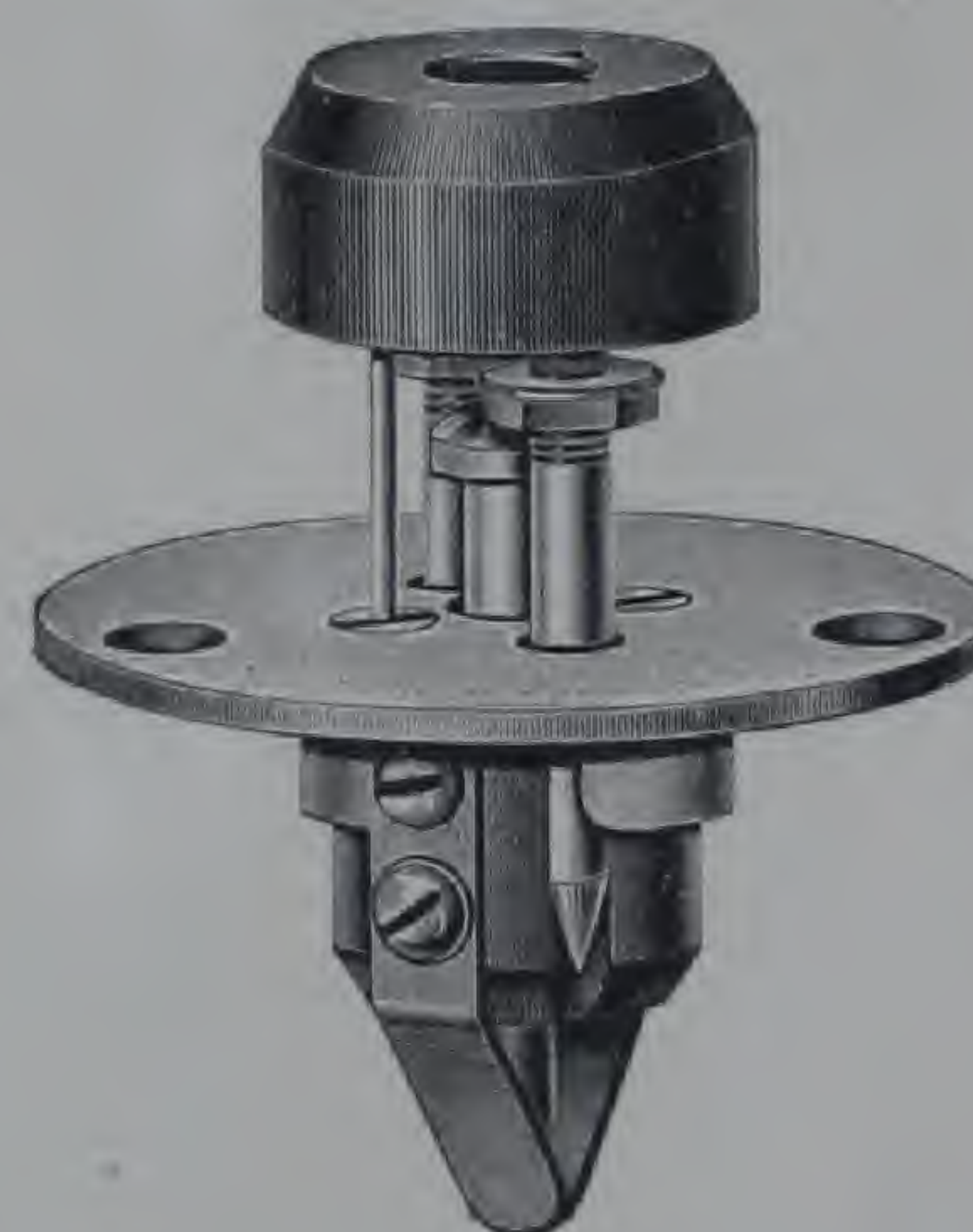
Each . . . . . \$0.75

Plain Floor Push



Each . . . . . \$0.36

Combination Floor Push



Each . . . . . \$0.50

Daisy Floor Tread



Each . . . . . \$1.50

Dandy Floor Push

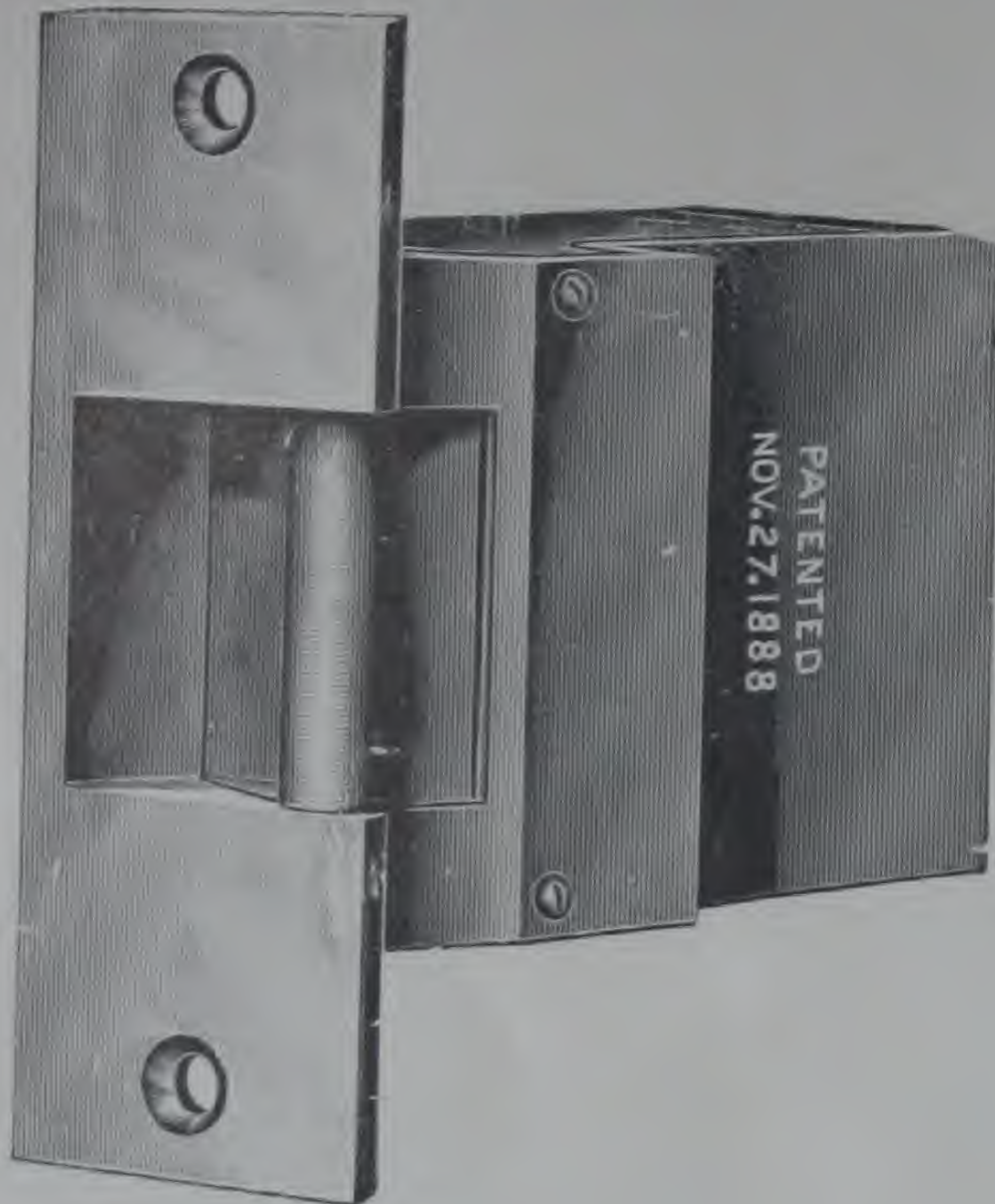


Each . . . . . \$1.30

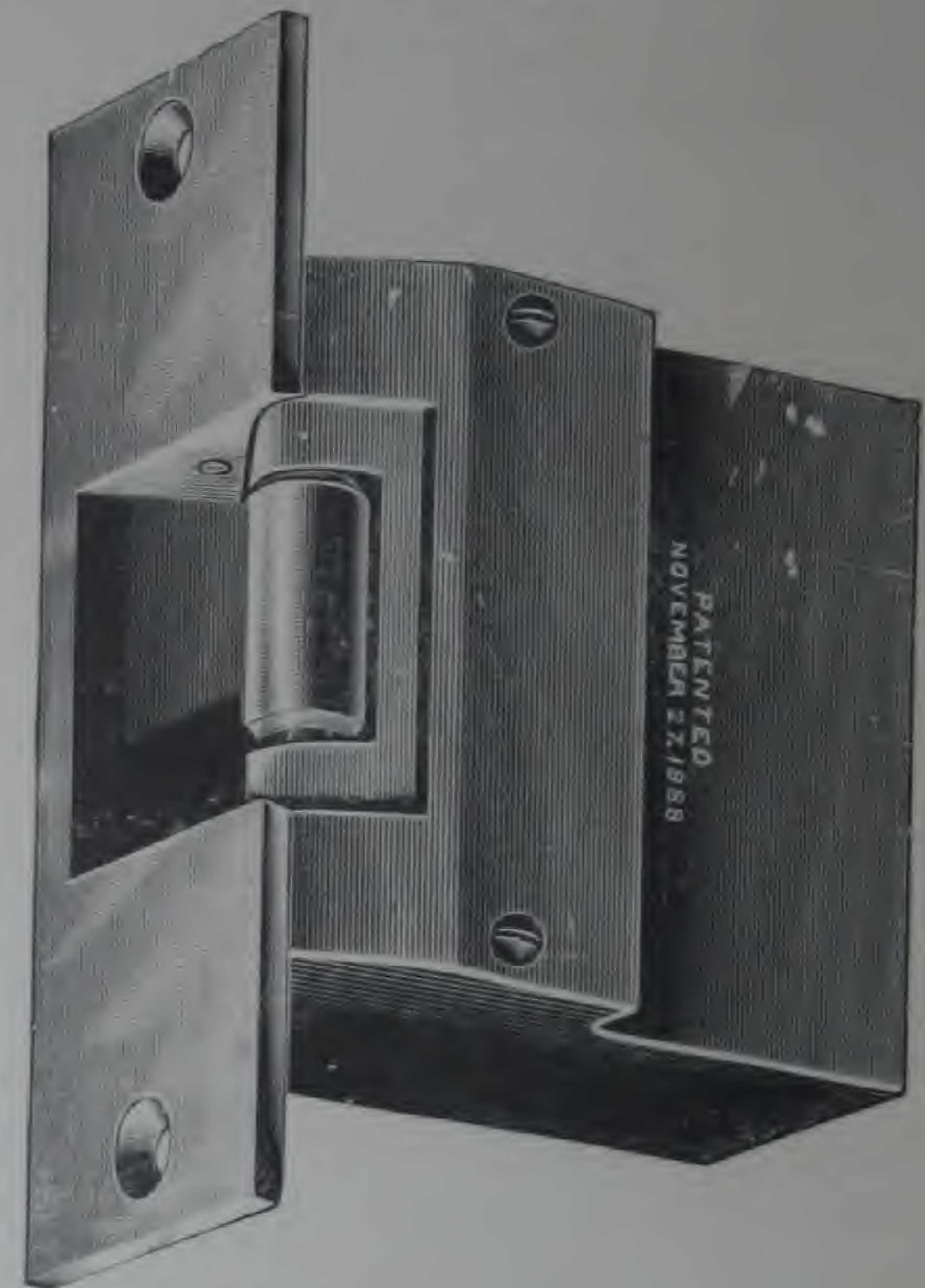


## Door Openers

No. 150

Width of nosing  $1\frac{1}{4}$ " . . . \$3.00

No. 151

Width of nosing  $1\frac{1}{4}$ " . . . \$3.00

No. 153

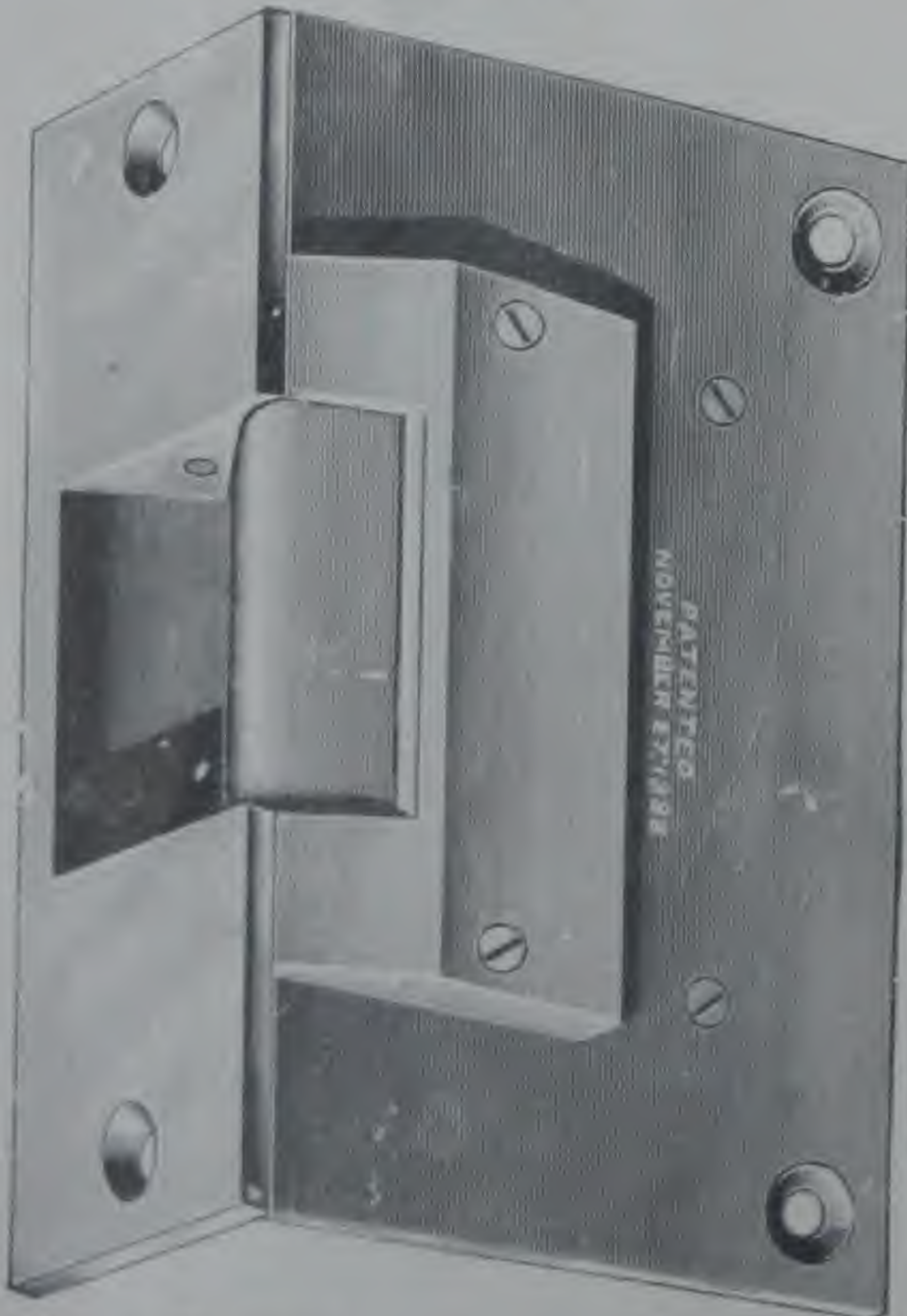
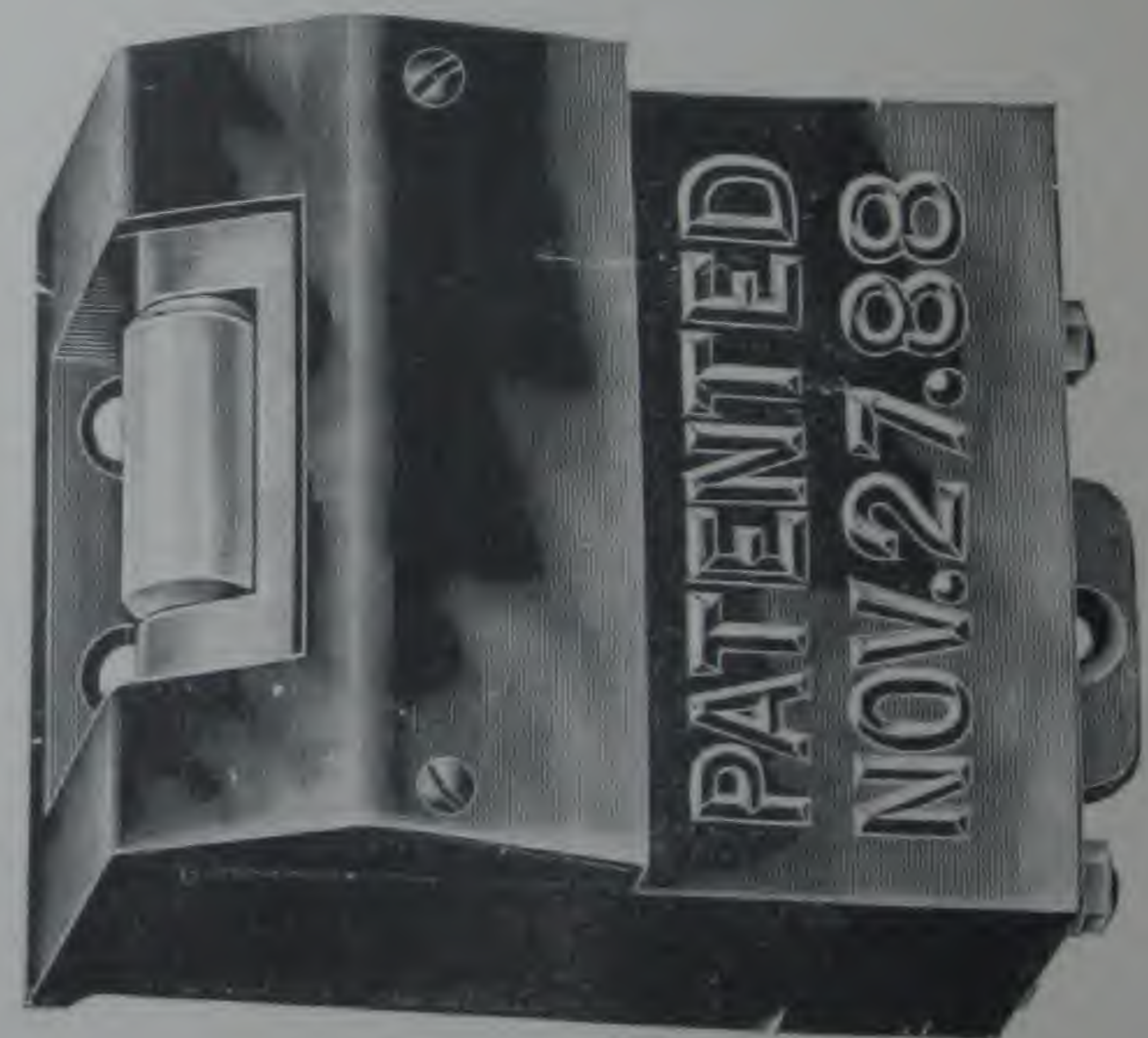


Plate Door Opener . . . \$3.60

No. 152



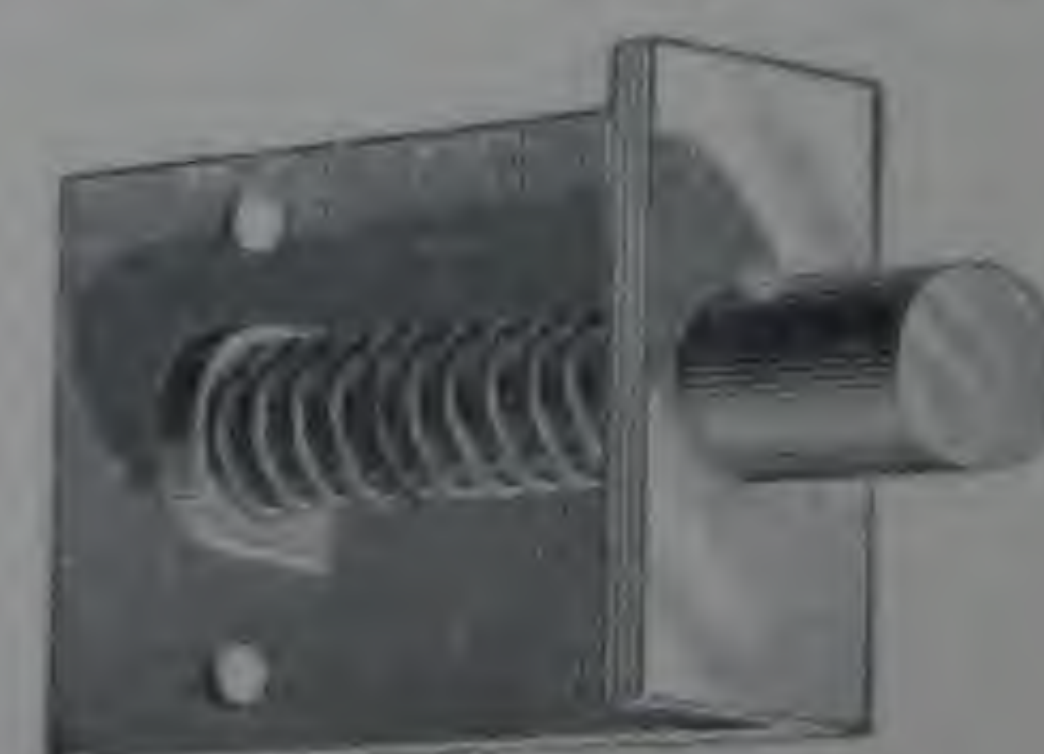
Rim Door Opener . . . \$3.60

Push-out Spring—No. 79



Each . . . \$0.25

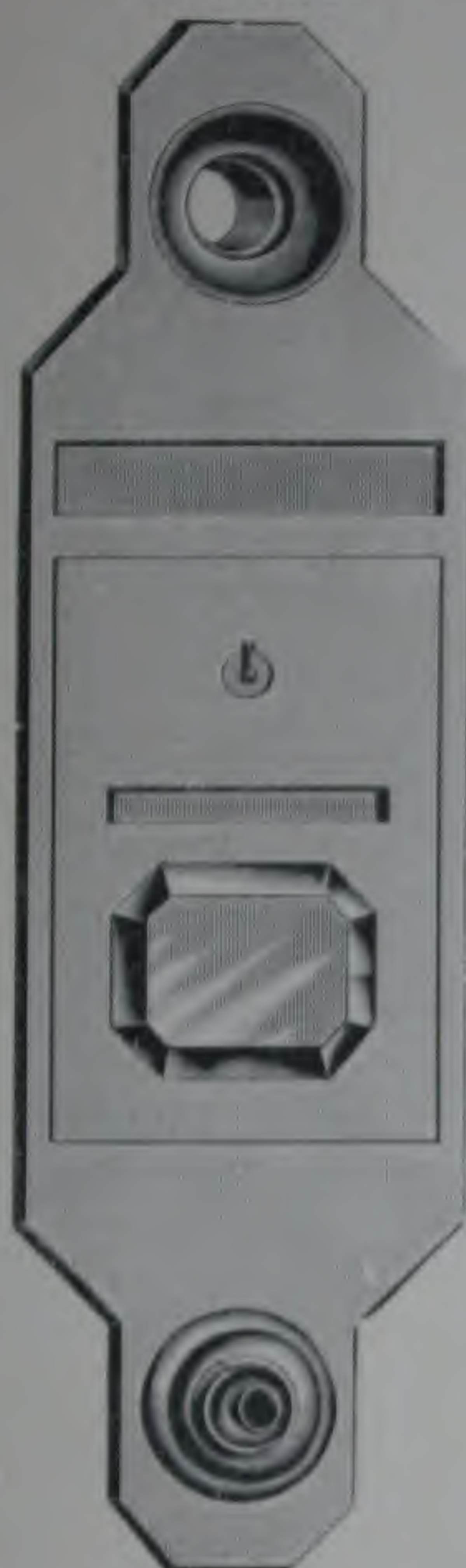
Push-out Spring—No. 49



Each . . . \$0.30



Vestibule House Letter Box  
No. 25078



Size, 13 1/4" x 4"

Price . . . . . \$8.50

Vestibule House Letter Box  
No. 25130



Size, 12 1/4" x 4"

Price . . . . . \$8.00

Key Stations



(Black Japanned)

Each . . . . . \$0.60  
Keys extra . . . . . .12

Magneto Stations listed on page 98.

Fire Alarm Box



Each . . . . . \$5.00



## Door Springs

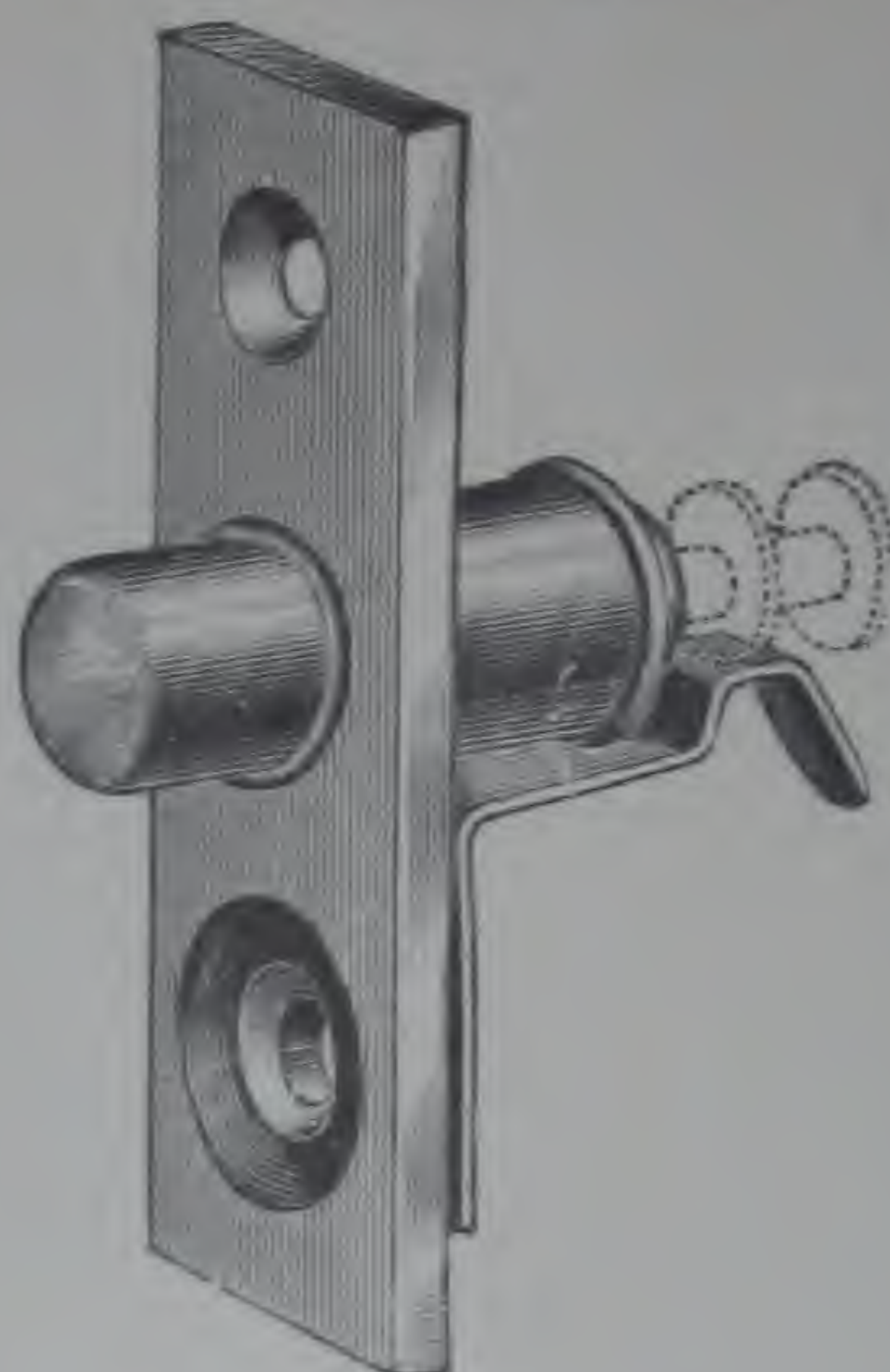
Open Circuit



No. 34

Each . . . \$0.20

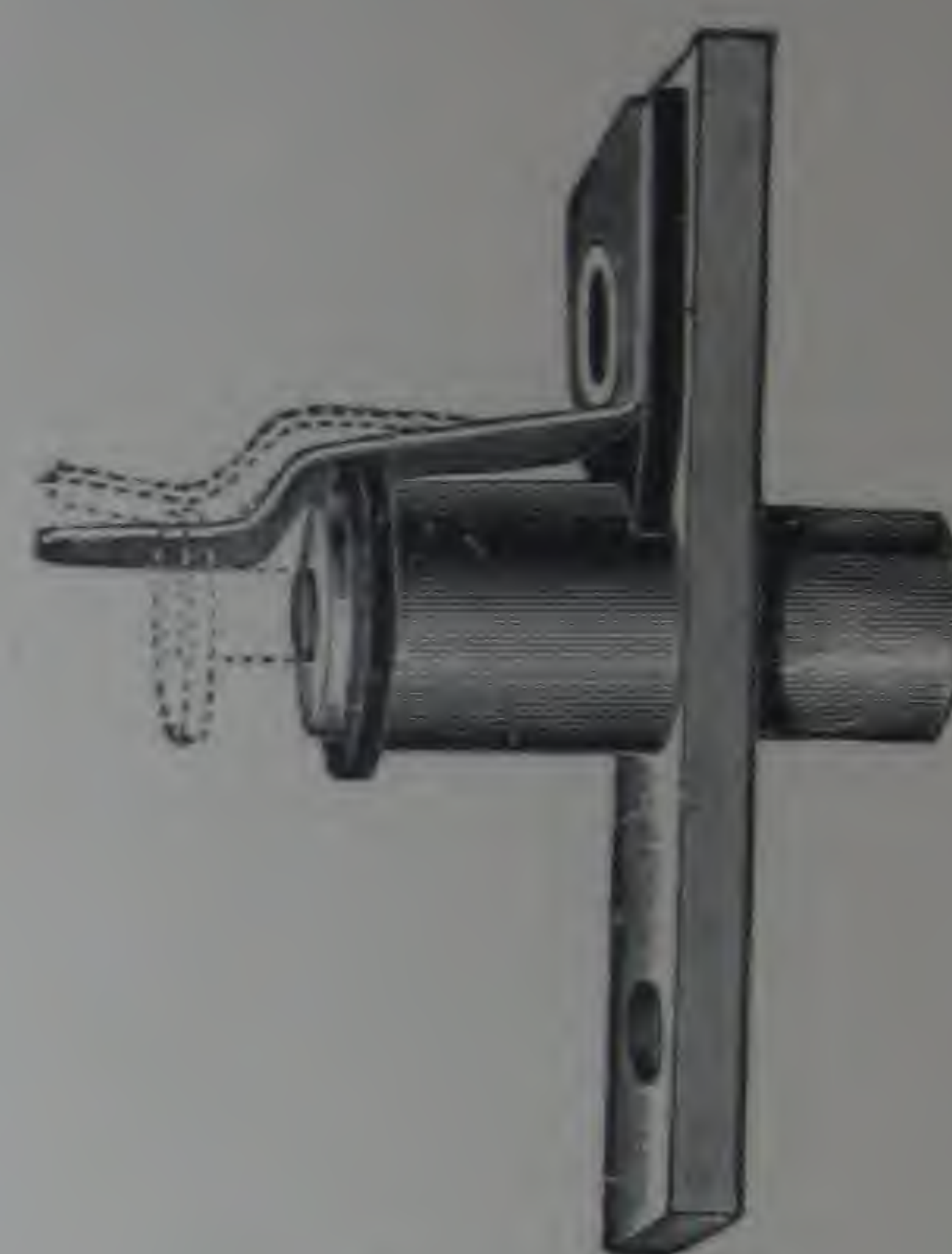
Make and Break



No. 38

Each . . . \$0.20

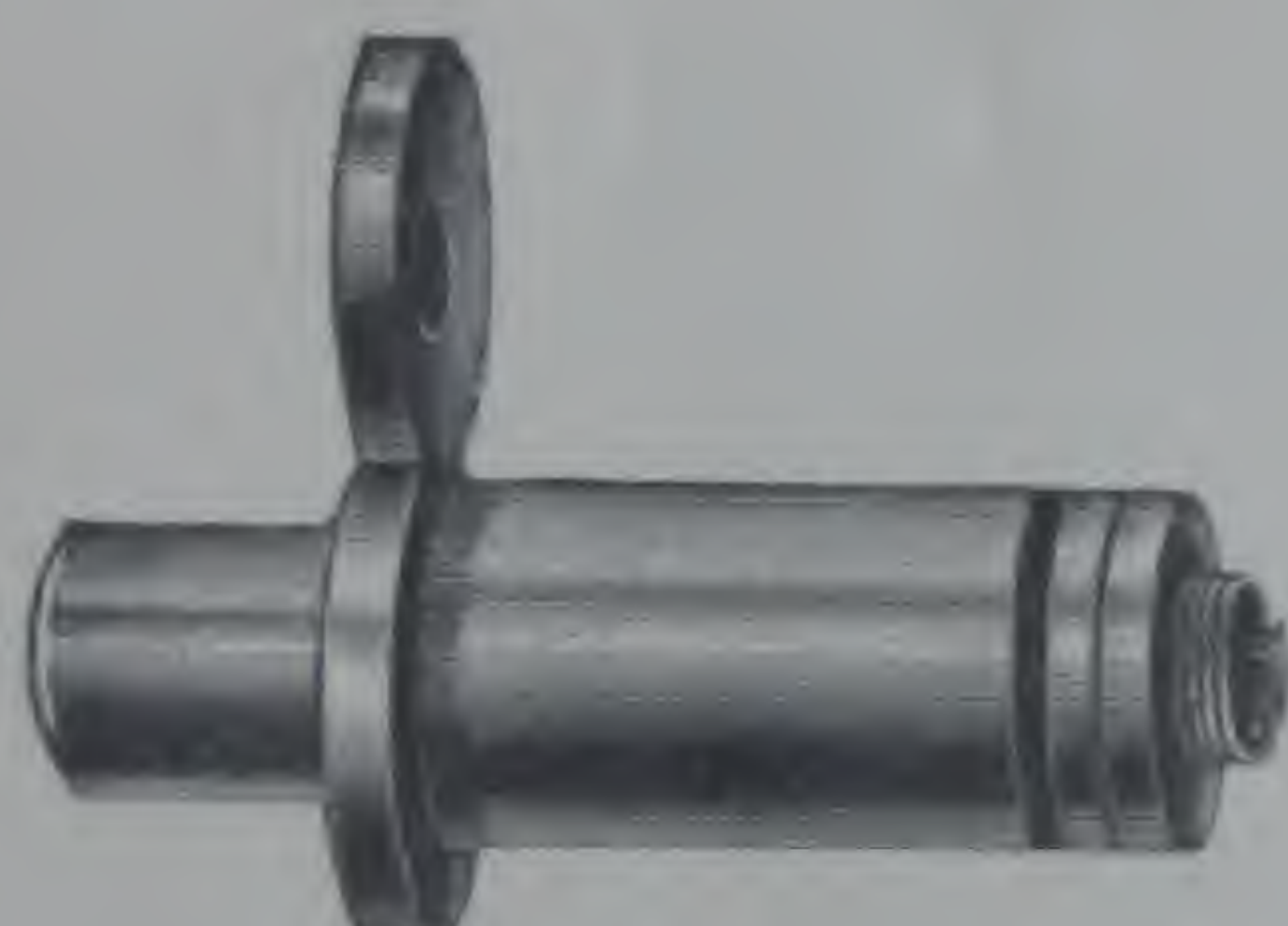
Closed Circuit



No. 39

Each . . . \$0.20

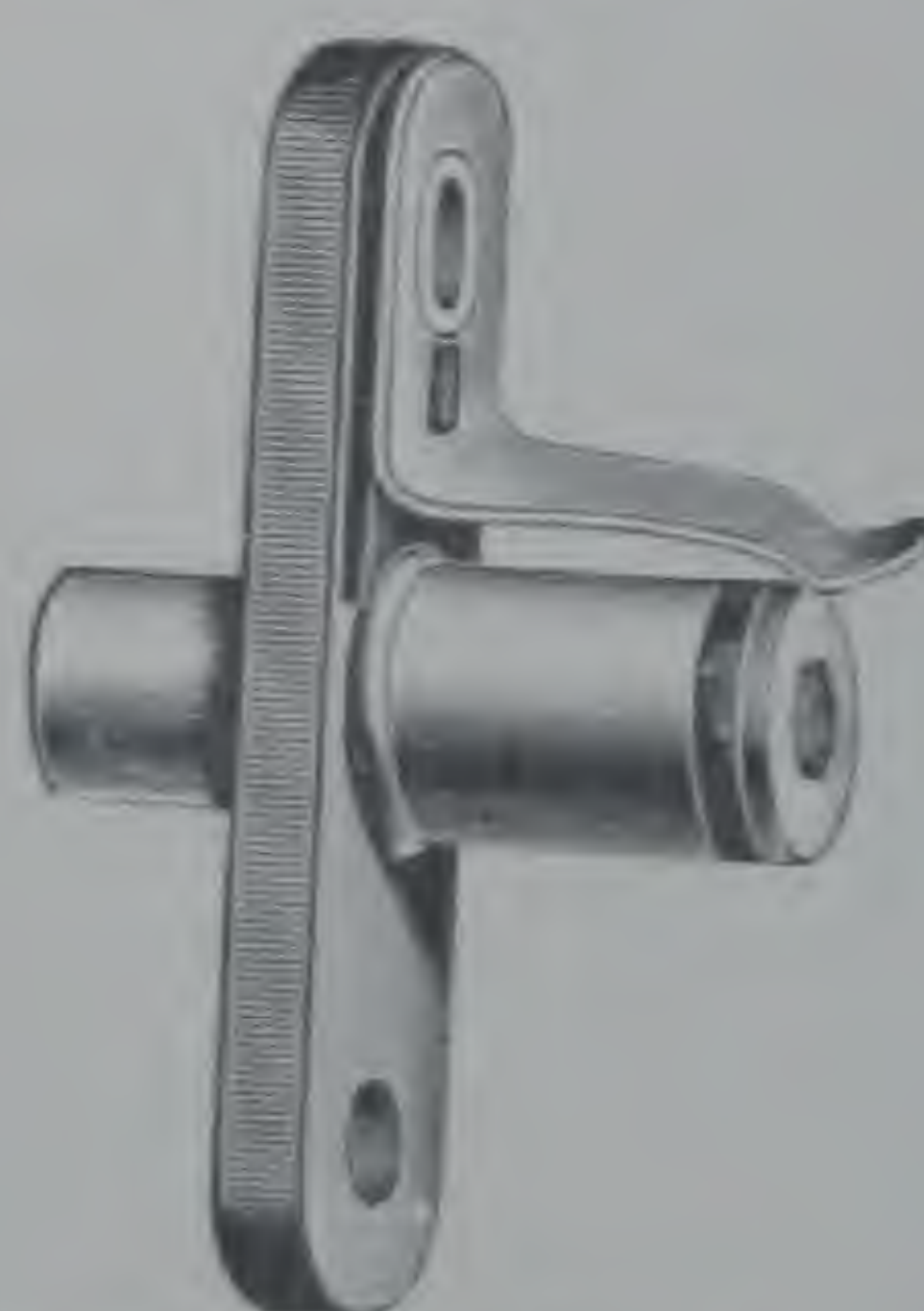
Open Circuit



No. 4

Each . . . \$0.16

Open Circuit



No. 35—For thin doors

Each . . . \$0.20

Shade Spring



No. 31

Each . . . \$0.56

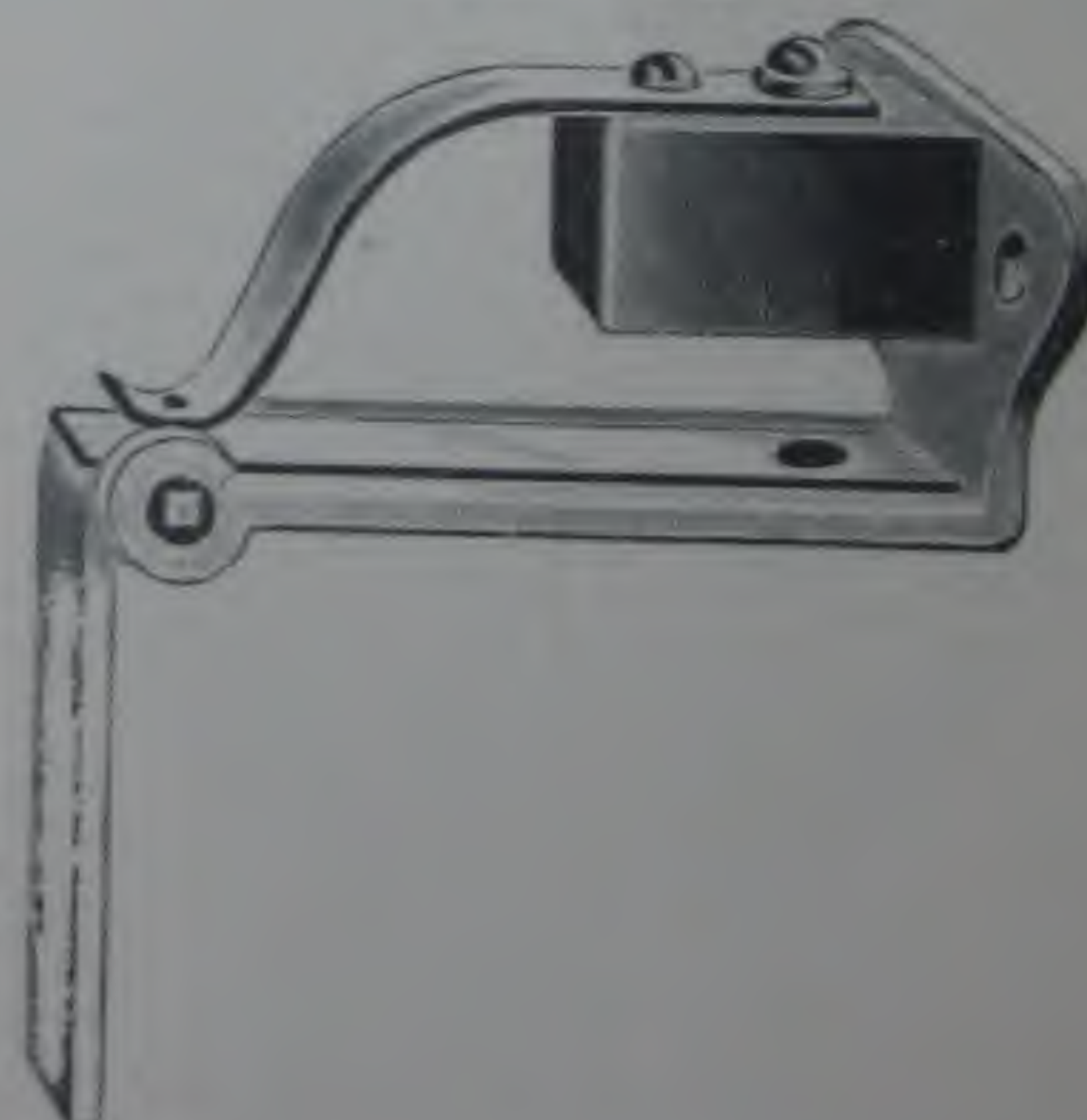
Transom Spring



No. 32

Each . . . \$0.70

Door Trip



Each . . . \$0.50



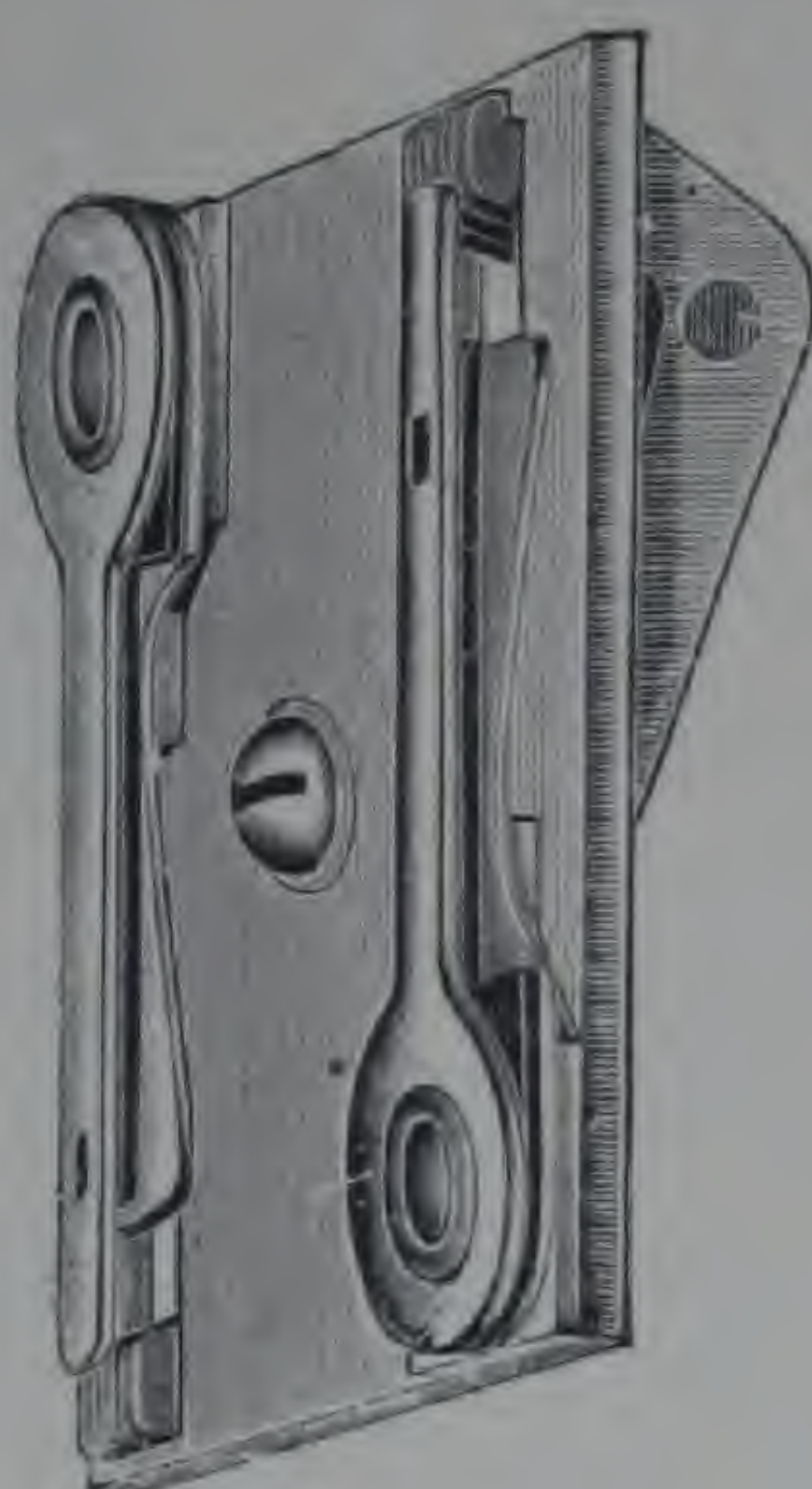
# Window Springs

No. 27



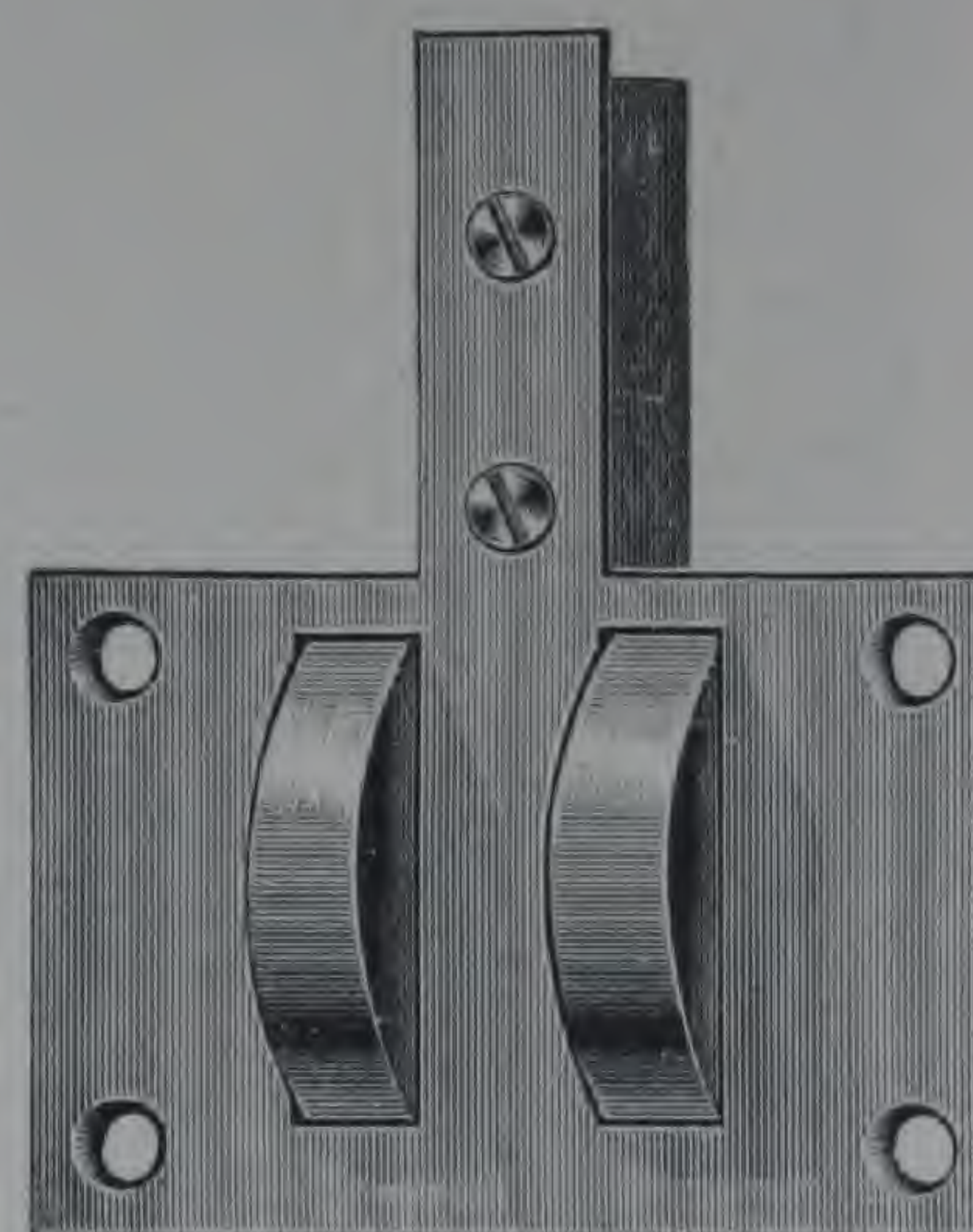
Each . . . \$0.22

No. 29



Each . . . \$0.40

No. 45



Each . . . \$0.30

No. 28



Each . . . \$0.22

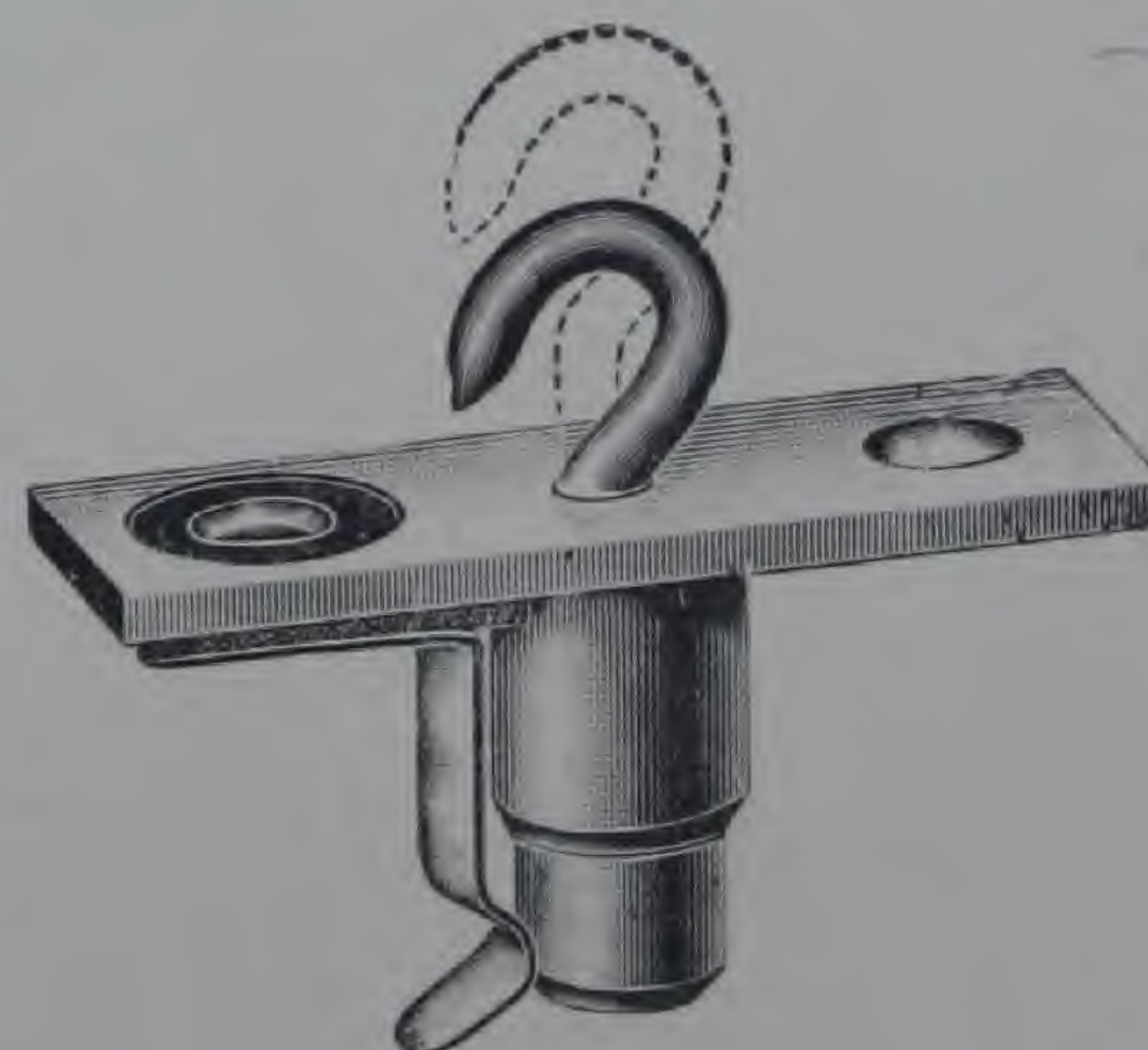
No. 30



Open or Closed Circuit

Each . . . \$0.26

## Shade Spring



No. 138

Each . . . \$0.56



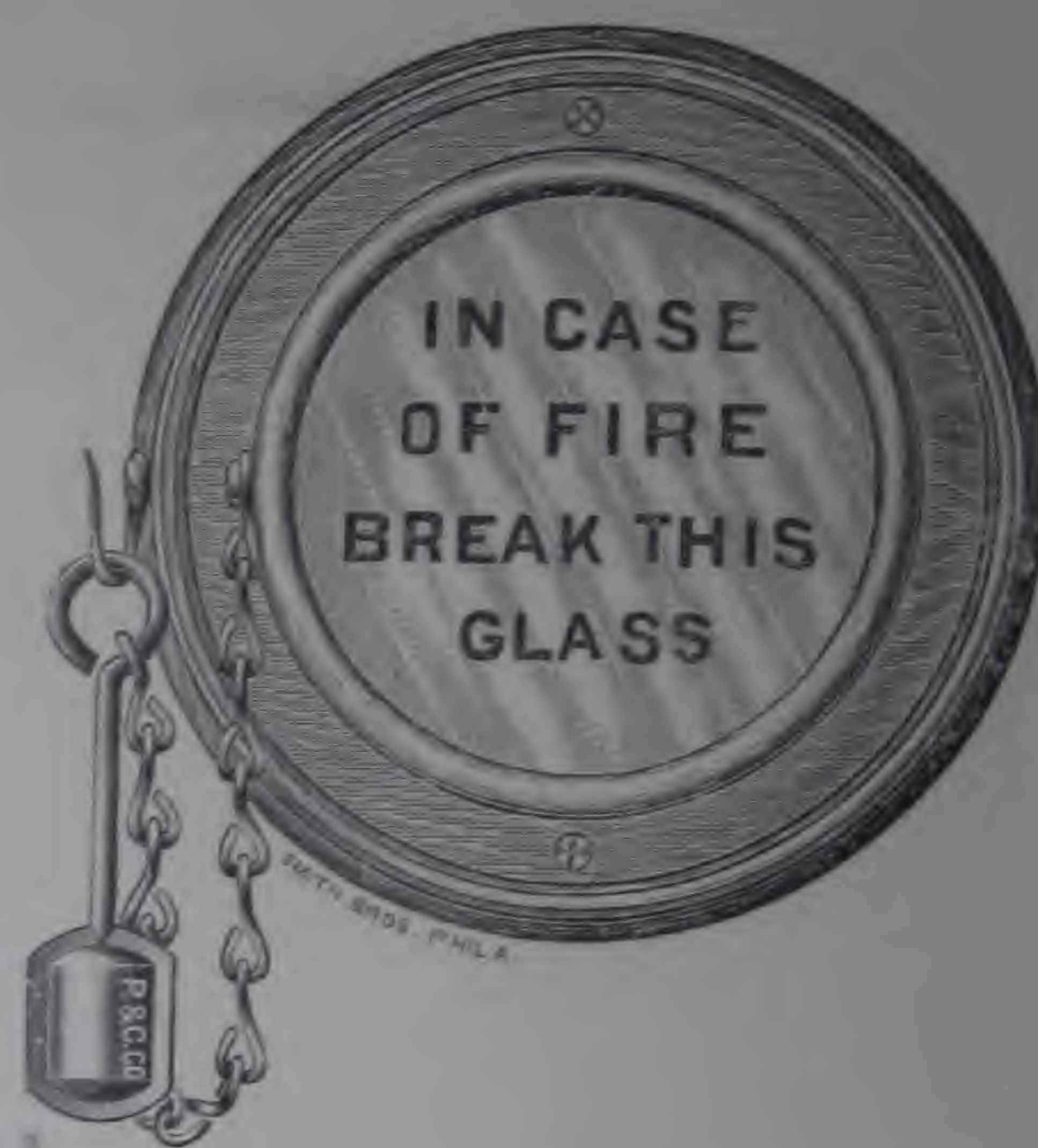
## High and Low Water Alarm



In ordering give dimensions of tank and point from bottom to give low water alarm, and point from top for high water alarm.

Each . . . . . \$7.00

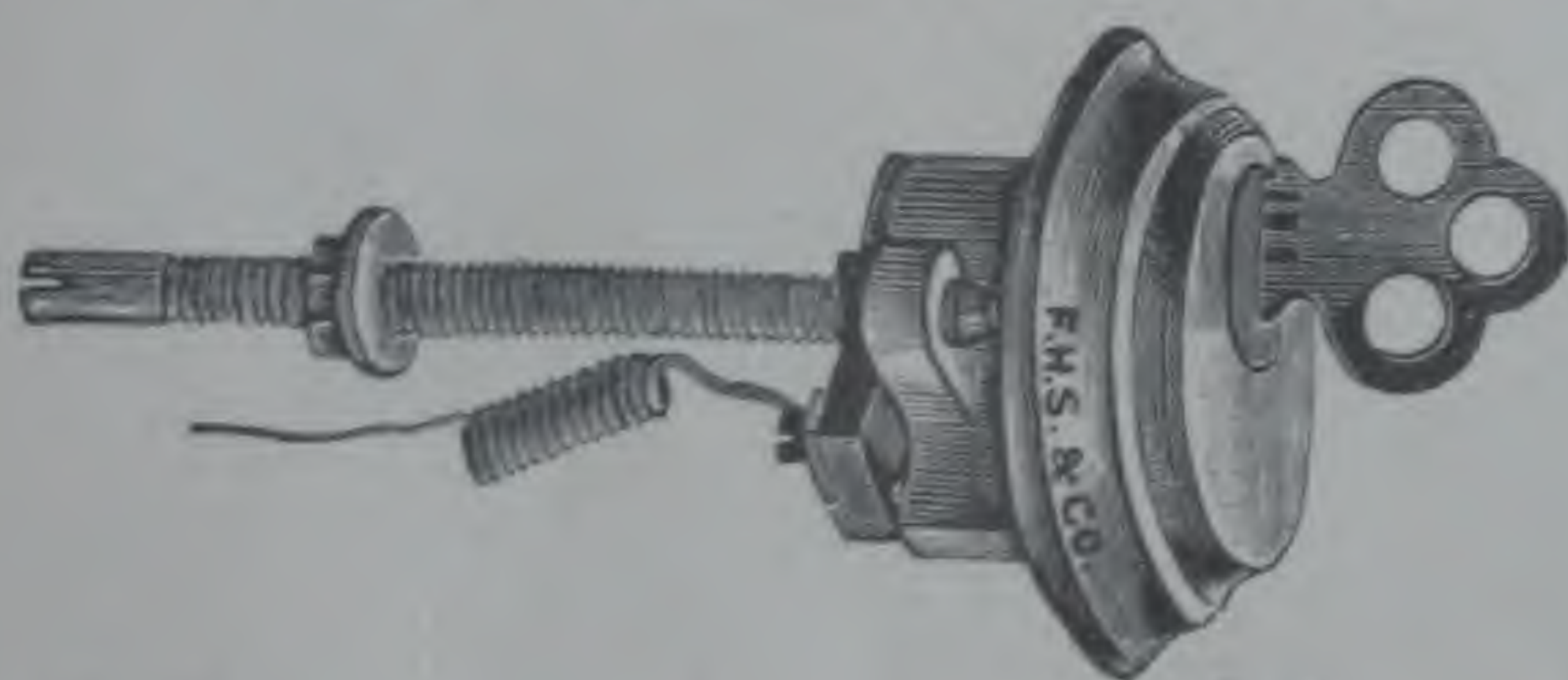
## Fire Alarm Signal



Wood Base, Thin Glass Front

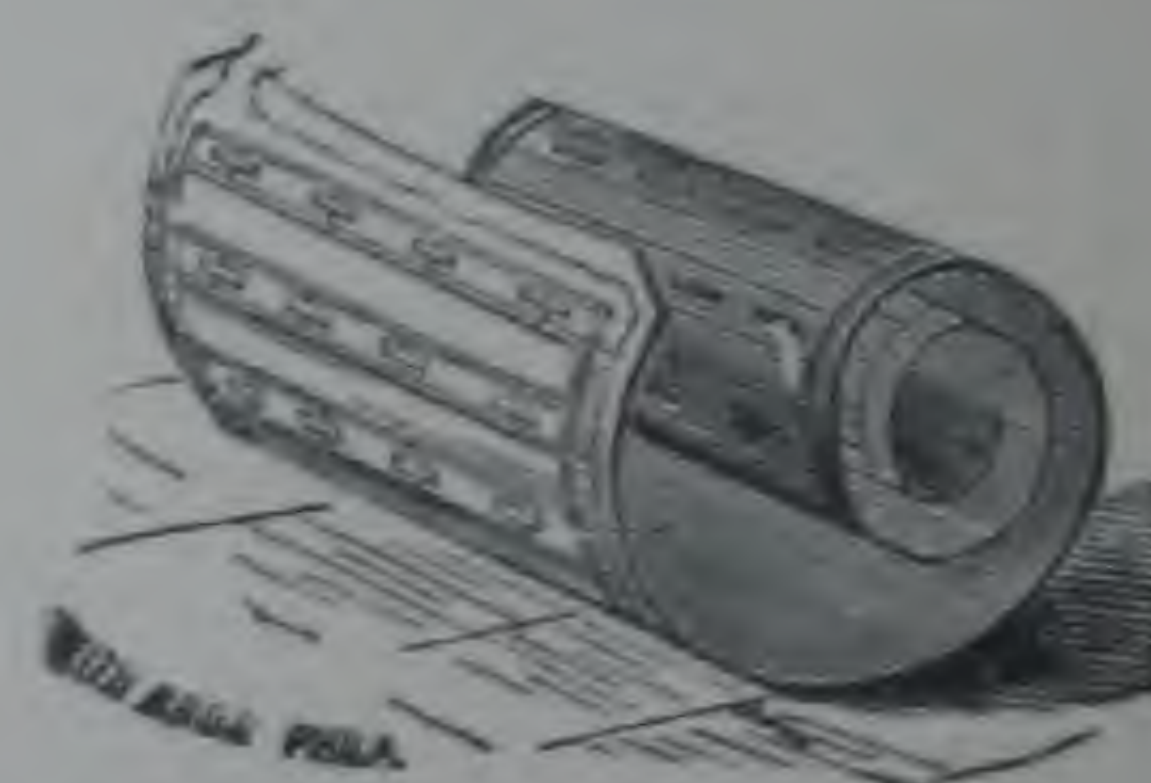
Each . . . . . \$1.50

## Burglar Alarm Key Switch



Each . . . . . \$3.50

## Electric Floor Matting



Made in 2 or 3 foot widths

Per square foot . . . . . \$0.30

## Automatic Fire Alarm Thermostat



Adjusted to any degree of heat, but when not otherwise ordered are set at 125° Fahrenheit.

Each . . . . . \$1.00

## Improved Adjustable Thermostat



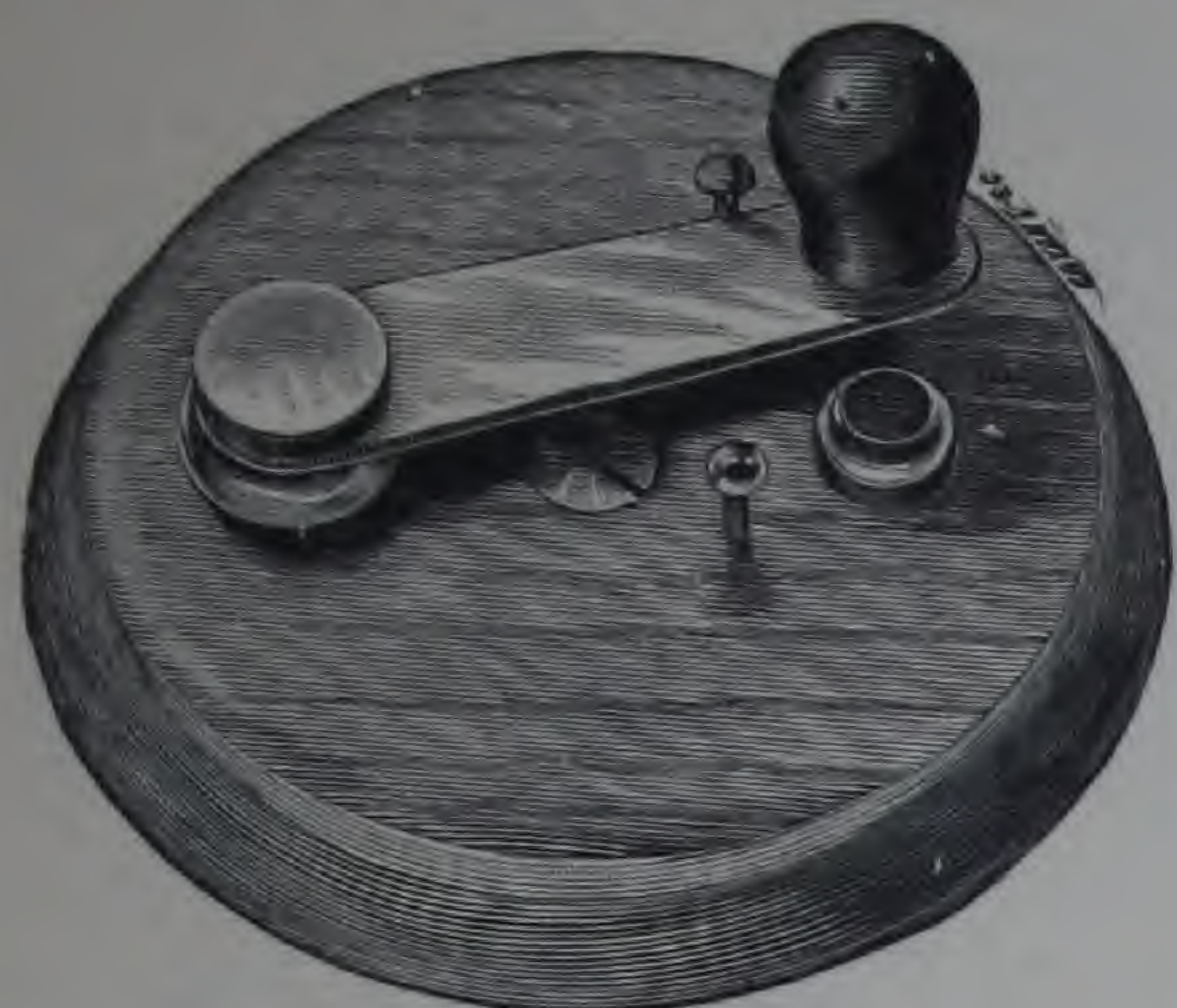
Can be set at any degree and will make contact on rise or fall of temperature.

Each . . . . . \$1.80



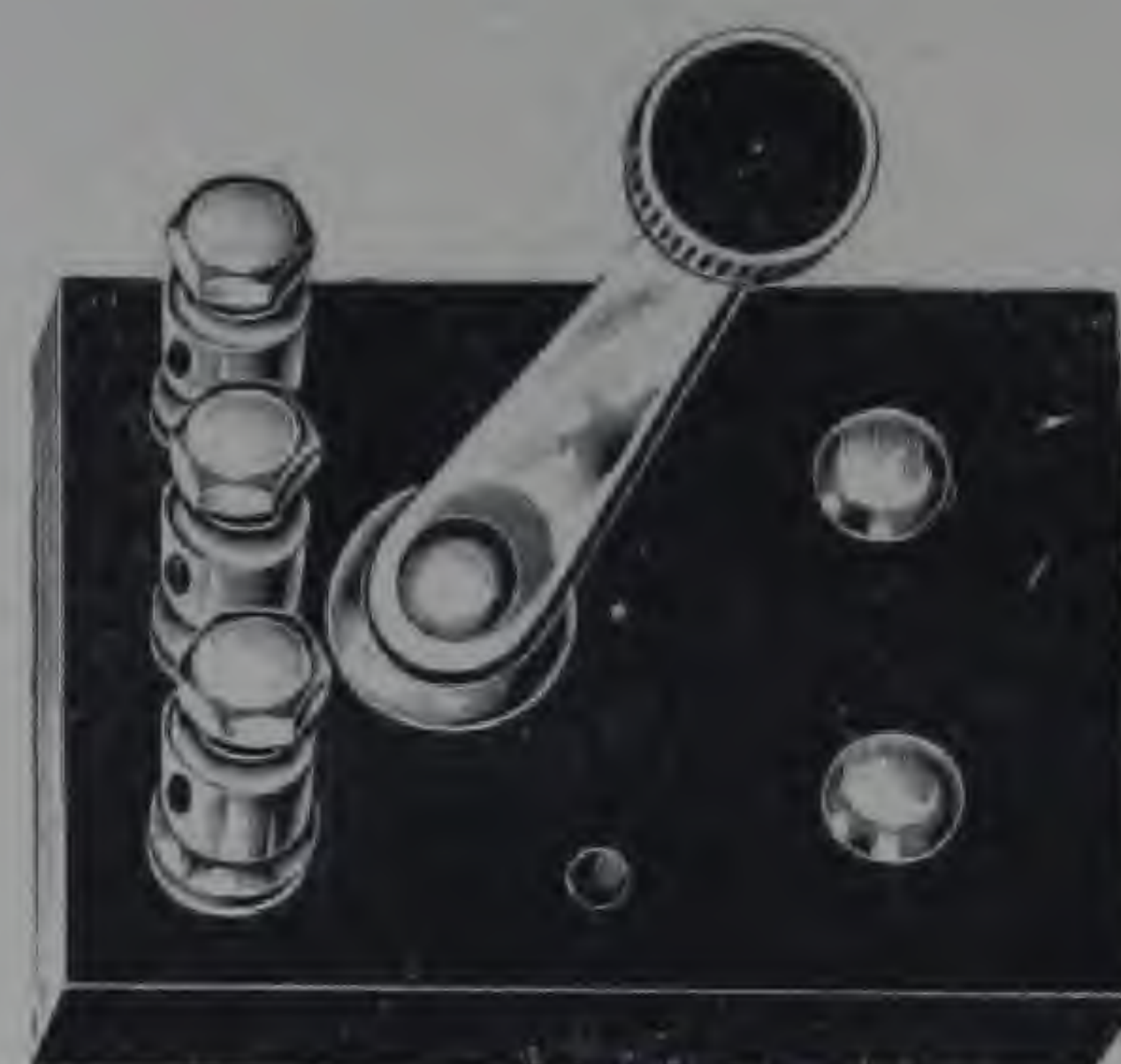
## Switches

## Wood Base Switches



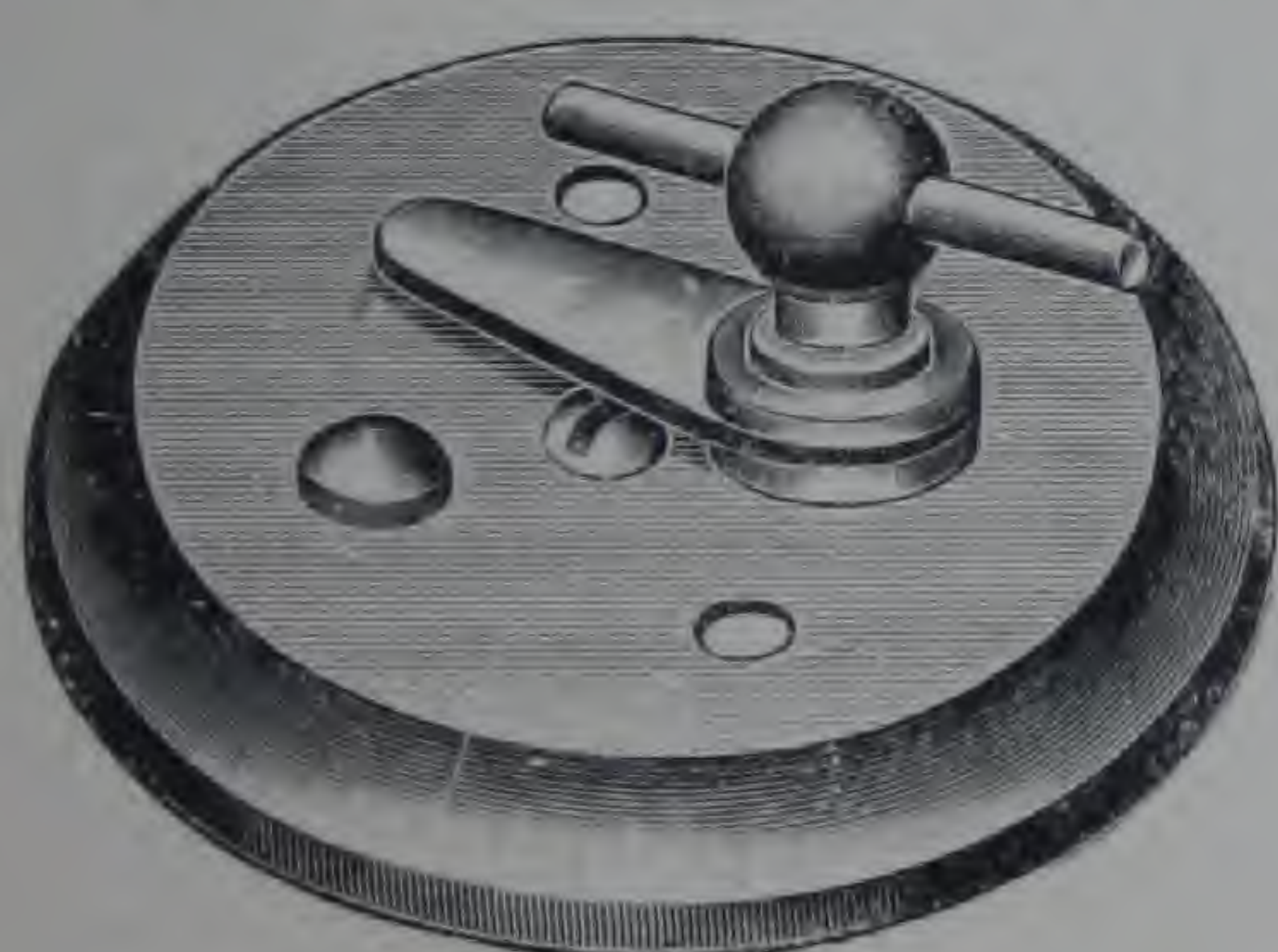
	Each.
1 Point . . . . .	\$0.14
2 " . . . . .	.16
3 " . . . . .	.18
4 " . . . . .	.22

## Rubber Base Switches



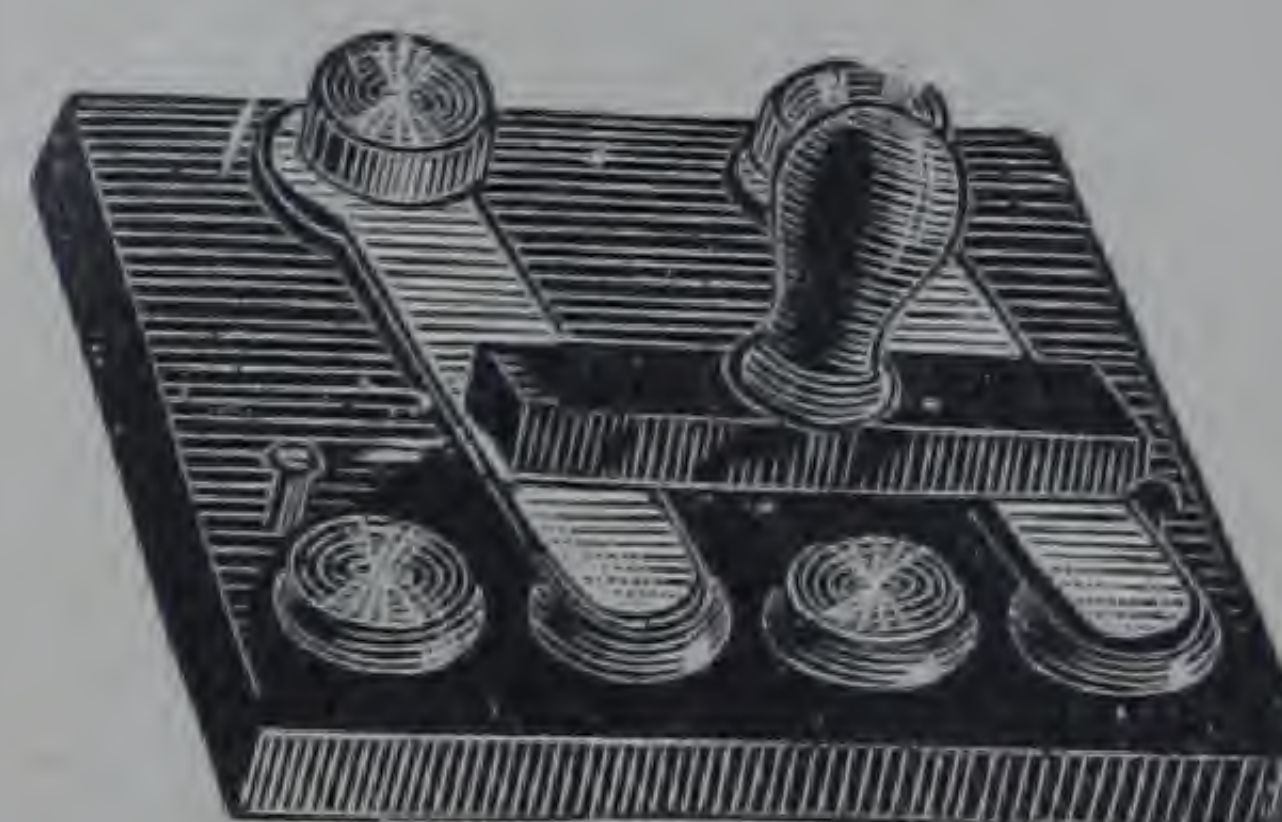
	Without Binding Posts.	With Binding Posts.
1 Point . . . . .	\$0.48	\$0.70
2 " . . . . .	.60	.80
3 " . . . . .	.80	1.10

## Nickle-plated Switches



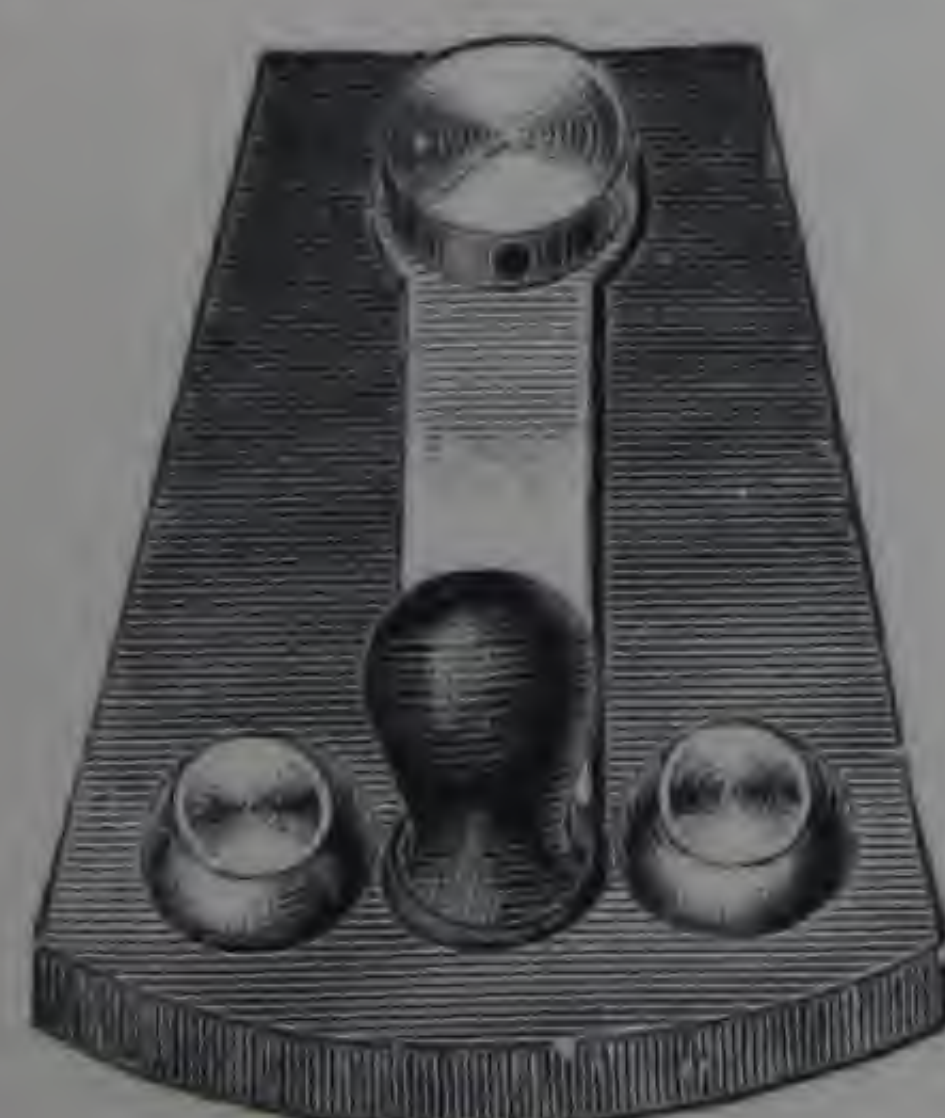
	Each.
1 Point . . . . .	\$0.24
2 " . . . . .	.26
3 " . . . . .	.30

## Pole-changing Switches



Hard Rubber Base . . . . .	\$1.20
Wood Base . . . . .	.90

## Keystone Base Switches



	Each.
1 Point . . . . .	\$0.50
2 " . . . . .	.56
3 " . . . . .	.62

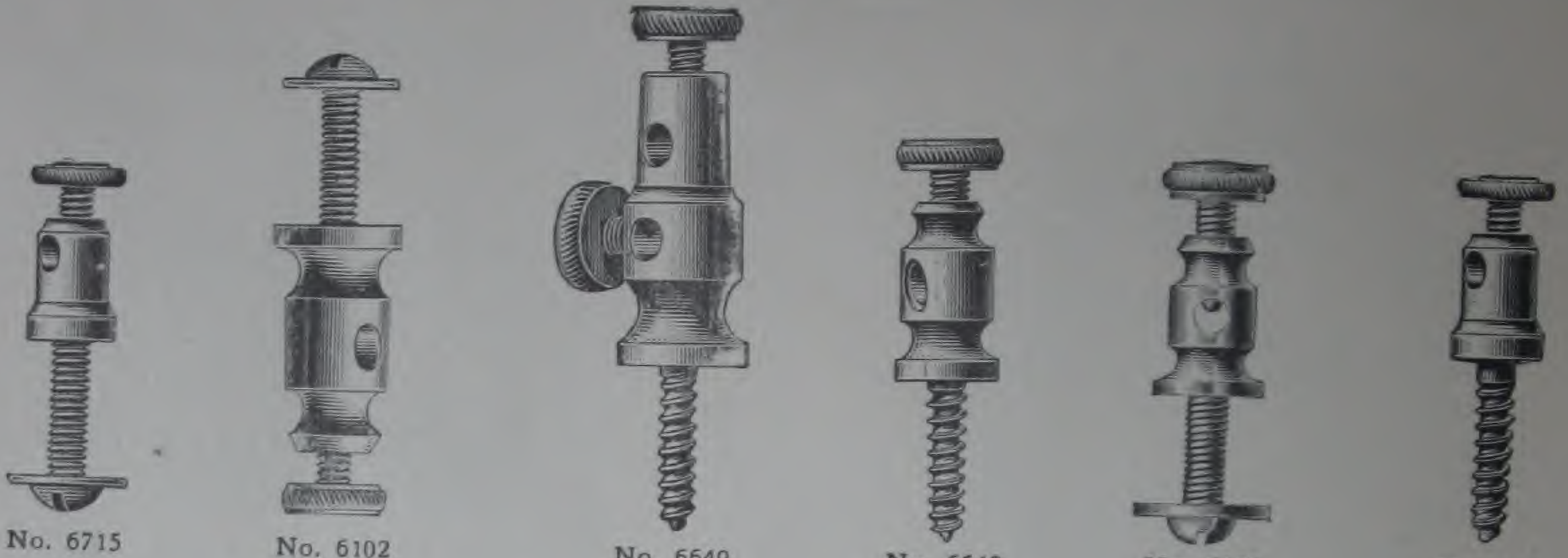
## Door Pull Attachment



Each . . . . .	\$0.44
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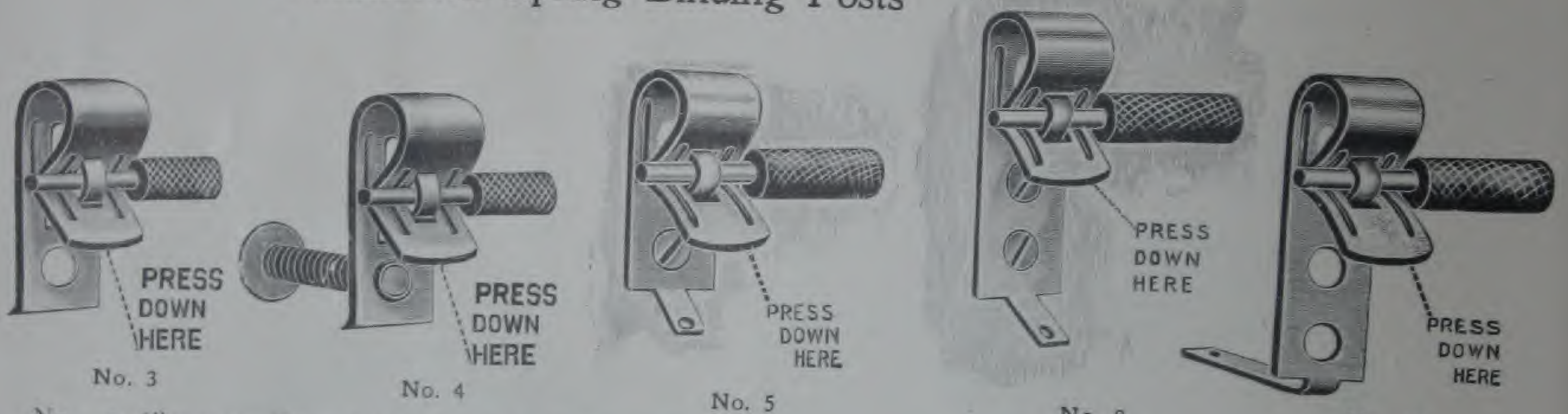


## Binding Posts



No. 6715	No. 6102	No. 6649	No. 6648	No. 5980	No. 114
Each . . \$0.10	Each . . \$0.14	Each . . \$0.20	Each . . \$0.14	Each . . \$0.10	Each . . \$0.10
Per doz. .96	Per doz. 1.44	Per doz. 2.16	Per doz. 1.44	Per doz. .96	Per doz. .96

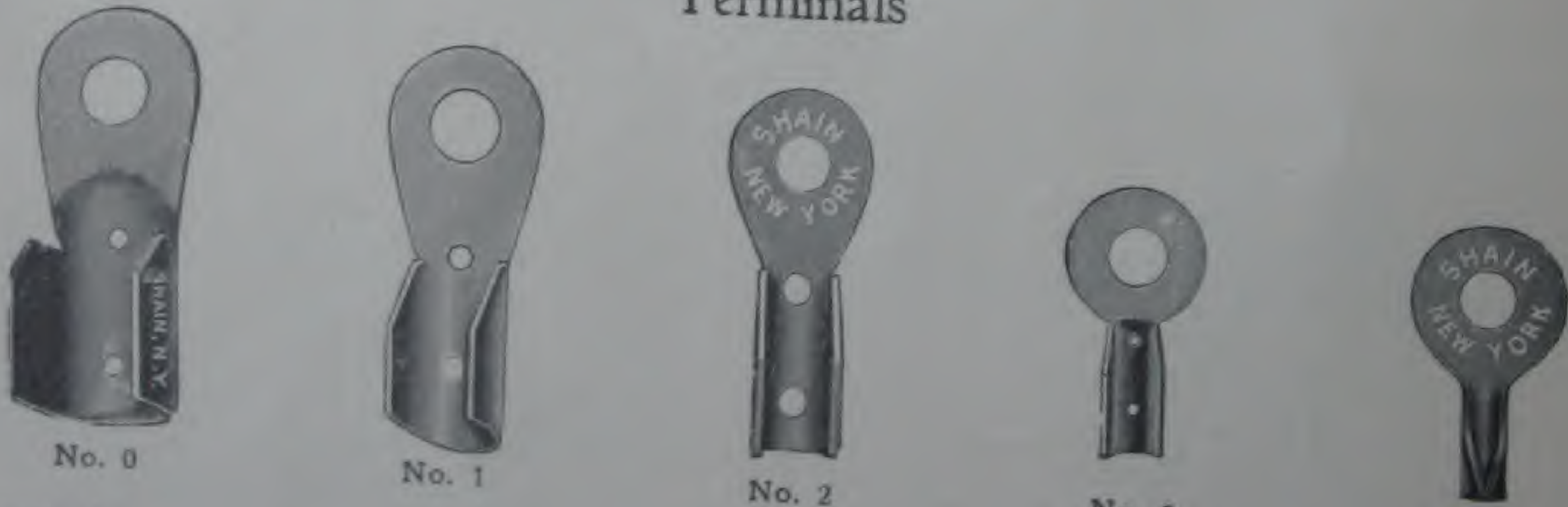
## Fahnestock Spring Binding Posts



No. 3	No. 4	No. 5	No. 8	No. 10
No. 3, Clearance Screw Hole for an 8/32 Screw, will take No. 12 Wire and smaller	No. 4, Screw Hole, threaded	No. 5, Clearance Screw Hole	No. 8, " " " "	No. 10, " " " "
				\$0.04 each
				.04 "
				.04 "
				.04 "
				.04 "

Special Prices for larger quantities.

## Terminals



No. 0, Terminals	No. 1	No. 2	No. 3	No. 4
" 1, "	"	"	"	Per dozen.
" 2, "	"	"	"	\$0.30
" 3, "	"	"	"	.25
" 4, "	"	"	"	.20
				.15
				.20
				Per 100.
				\$2.00
				1.56
				1.32
				.90
				1.17



### Improved American Connectors (Copper)



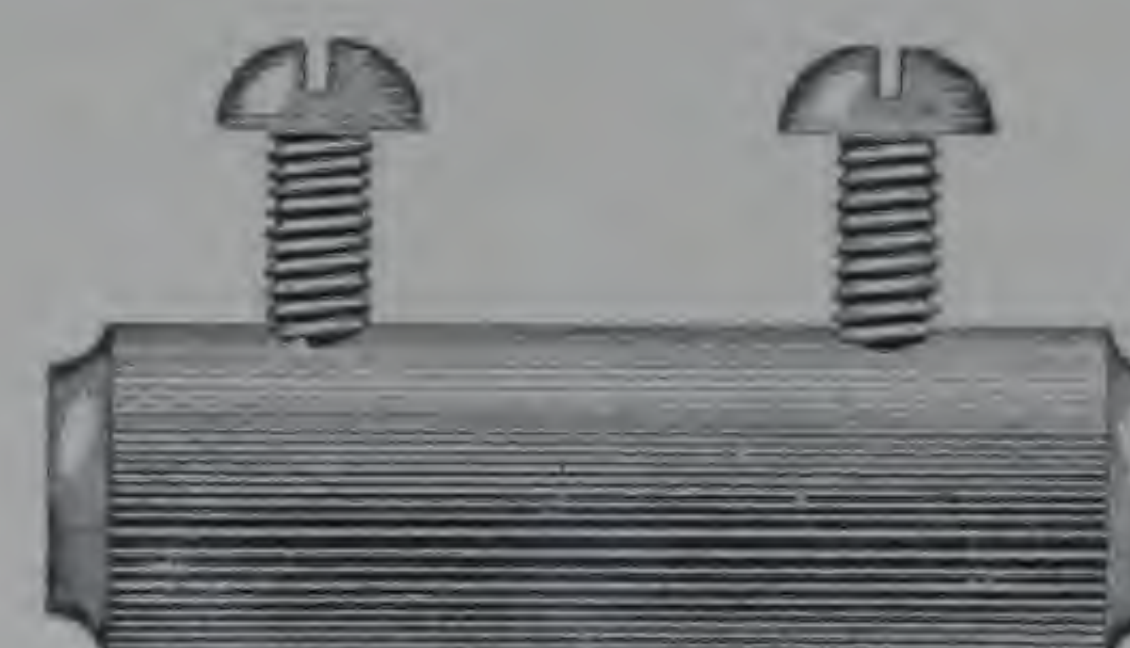
No.		Per 100.	No.		Per 100.
18	B. & S.	\$7.00	9	B. & S.	\$10.00
16	"	7.00	8	"	11.00
14	"	7.60	7	"	12.00
12	"	8.00	6	"	14.00
10	"	9.00	4	"	16.00

### Wire Connectors



With Four Set Screws

No.		Each.
207	For Nos. 4 and 5 wire, $\frac{7}{32}$ -in. hole,	\$0.09
208	" " 2 " 3 " $\frac{9}{32}$ "	.11
209	" " 0 " 1 " $\frac{11}{32}$ "	.13
210	" " 00 wire " $\frac{3}{8}$ "	.15
211	" " 000 " " $\frac{7}{16}$ "	.22
212	" " 0000 " " $\frac{1}{2}$ "	.28



With Two Set Screws

No.		Each.
200	For Nos. 12 and 14 wire, $\frac{1}{16}$ -in. hole,	\$0.05
201	" " 10 " 8 " $\frac{5}{32}$ "	.06
202	" " 6 " 7 " $\frac{3}{16}$ "	.07
203	" " 4 " 5 " $\frac{7}{32}$ "	.08
204	" " 2 " 3 " $\frac{9}{32}$ "	.10
205	" " 0 " 1 " $\frac{11}{32}$ "	.12
206	" " 00 wire " $\frac{3}{8}$ "	.14

### Bulldog Battery Connector



	Each.
Less than 10	\$0.10
Lots of 10	.09

### Eastern Battery Connector



	Each.
Less than 100	\$0.08
100 Lots	.06



## Style "A" Fibre Cleats

DIMENSIONS  
 $\frac{3}{4}$ " long  $\frac{1\frac{1}{2}}{2}$ " wide  
 $\frac{1}{4}$ " thick  $\frac{1}{4}$  x  $\frac{1}{8}$ " groove



Made with Single Groove for Twin or Parallel Wires.

Price . . . \$8.60 per 1000

## Style "B" Fibre Cleats

DIMENSIONS  
 $\frac{3}{4}$ " long  $\frac{1\frac{1}{2}}{2}$ " wide  
 $\frac{1}{4}$ " thick  $\frac{1}{8}$  x  $\frac{1}{8}$ " groove



Made with two Grooves and especially adapted for Twisted Pair Telephone Wires. Only one screw necessary to hold Cleat firmly in position.

Price . . . \$9.00 per 1000

## Style "C" Fibre Cleats

DIMENSIONS  
 $\frac{1\frac{1}{2}}{2}$ " long  $\frac{1\frac{1}{2}}{2}$ " wide  
 $\frac{1}{4}$ " thick  $\frac{1}{4}$  x  $\frac{1}{8}$ " groove



This is our Baby or CORNER CLEAT. The smallest, strongest and neatest Cleat on the market, and "comes in handy" everywhere.

Price . . . \$8.00 per 1000

## Style "D" Fibre Cleats

Made for three wires and takes up very little room. If installed with brass or nickel screws, makes a very pleasing appearance.



DIMENSIONS  
 $1\frac{1}{8}$ " long  $\frac{1\frac{1}{2}}{2}$ " wide  
 $\frac{1}{4}$ " thick  $\frac{1}{8}$  x  $\frac{1}{8}$ " grooves

Price . . . \$13.00 per 1000

We also make this same style of FIBRE CLEATS for 4, 6, 8, 10 and 12 wire for intercommunicating telephone work, annunciator systems, watchmen's clocks, etc., and will be pleased to quote prices on application.

## Style "E" Fibre Cleats



DIMENSIONS  
 $1\frac{5}{8}$ " long  $\frac{1\frac{1}{2}}{2}$ " wide  
 $\frac{1}{2}$ " thick  $\frac{1}{4}$  x  $\frac{1}{4}$ " grooves

For fastening Electric Light Wires to Switchboards, Motor Frames, Starting Panels, Controllers, etc. Used extensively in Automobile and Storage Battery work. Replaces Metal Cleats, which in time cut the insulation from the wires.

Price . . . \$30.00 per 1000

## Blake Insulated Staples



No.	Size	100 Lots.	1000 Lots.	5000 Lots.
No. 1,	$\frac{1}{2}$ "	\$0.30 per 100	\$2.90 per 1000	\$2.80 per 1000
" 3,	$\frac{3}{4}$ "	.30 " 100	2.90 " 1000	2.80 " 1000
" 5,	$\frac{5}{8}$ "	.30 " 100	3.20 " 1000	3.10 " 1000
" 7,	$\frac{7}{8}$ "	.30 " 100	3.20 " 1000	3.10 " 1000

## Double-pointed Tacks



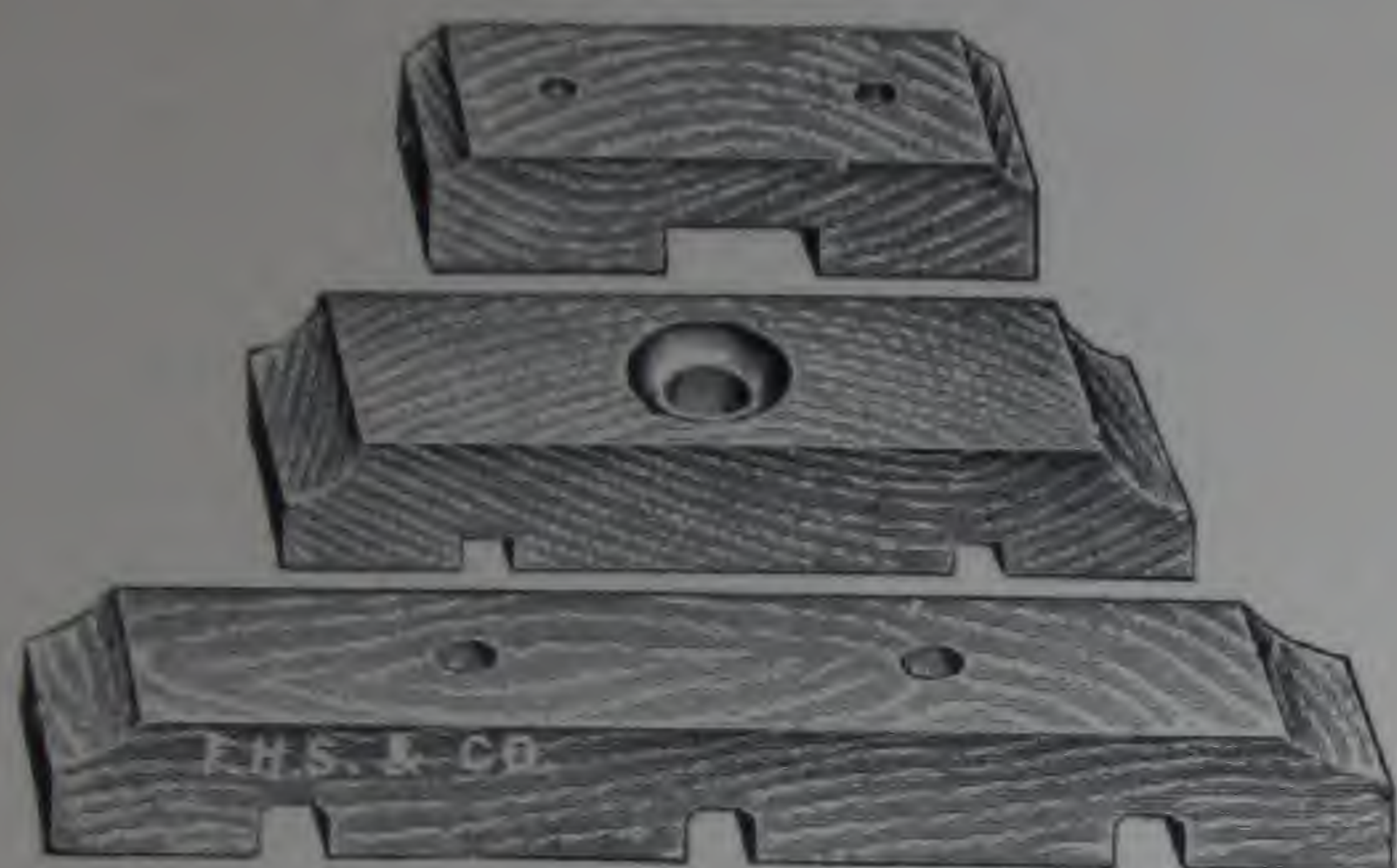
Per lb. . . . \$0.24

## Moulding Brads



All Sizes  
 Per lb. . . . \$0.15





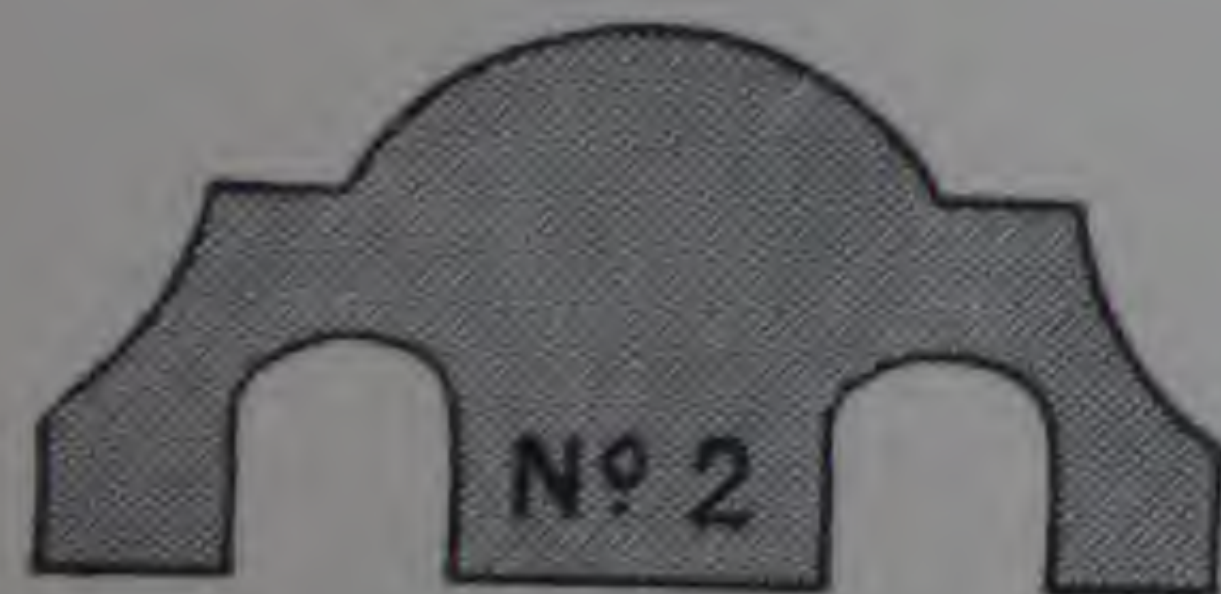
## Wood Cleats

Per 100, any style . . . . . \$0.60

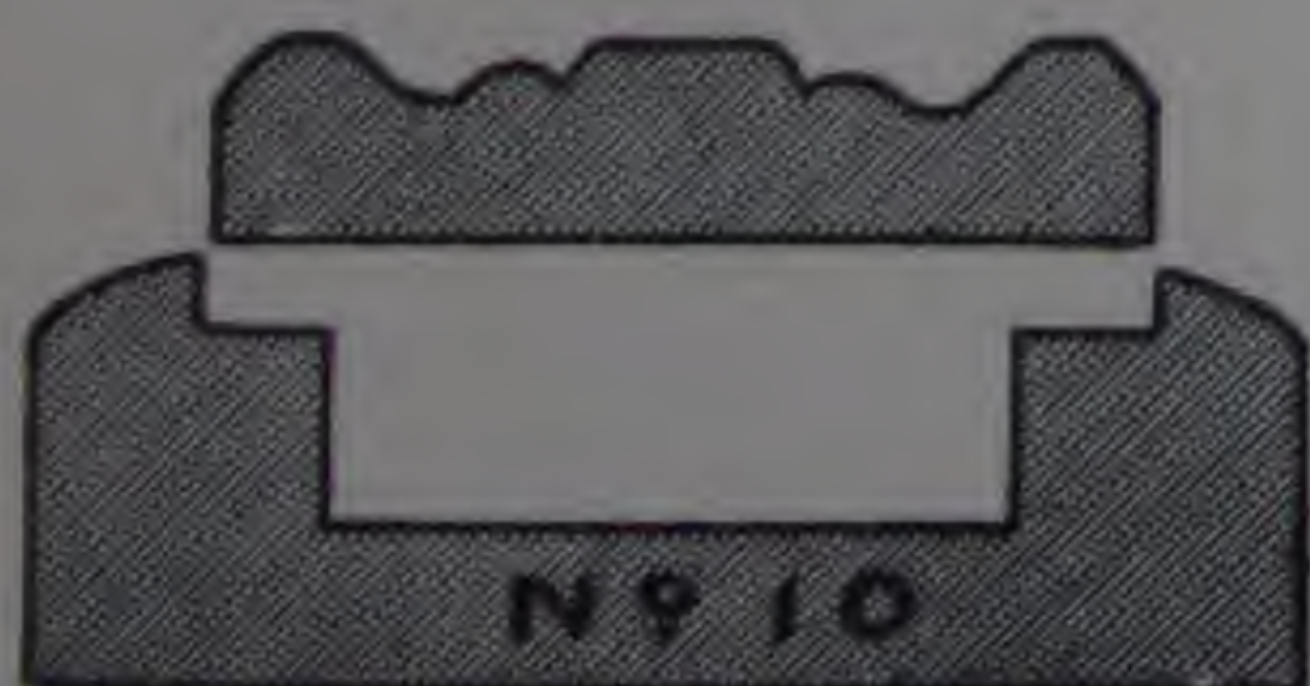
## Bell Wire Moulding



No. 1, Plain,  $\frac{1}{4}$ " groove . . . . . Per 1000 feet.  
\$8.00



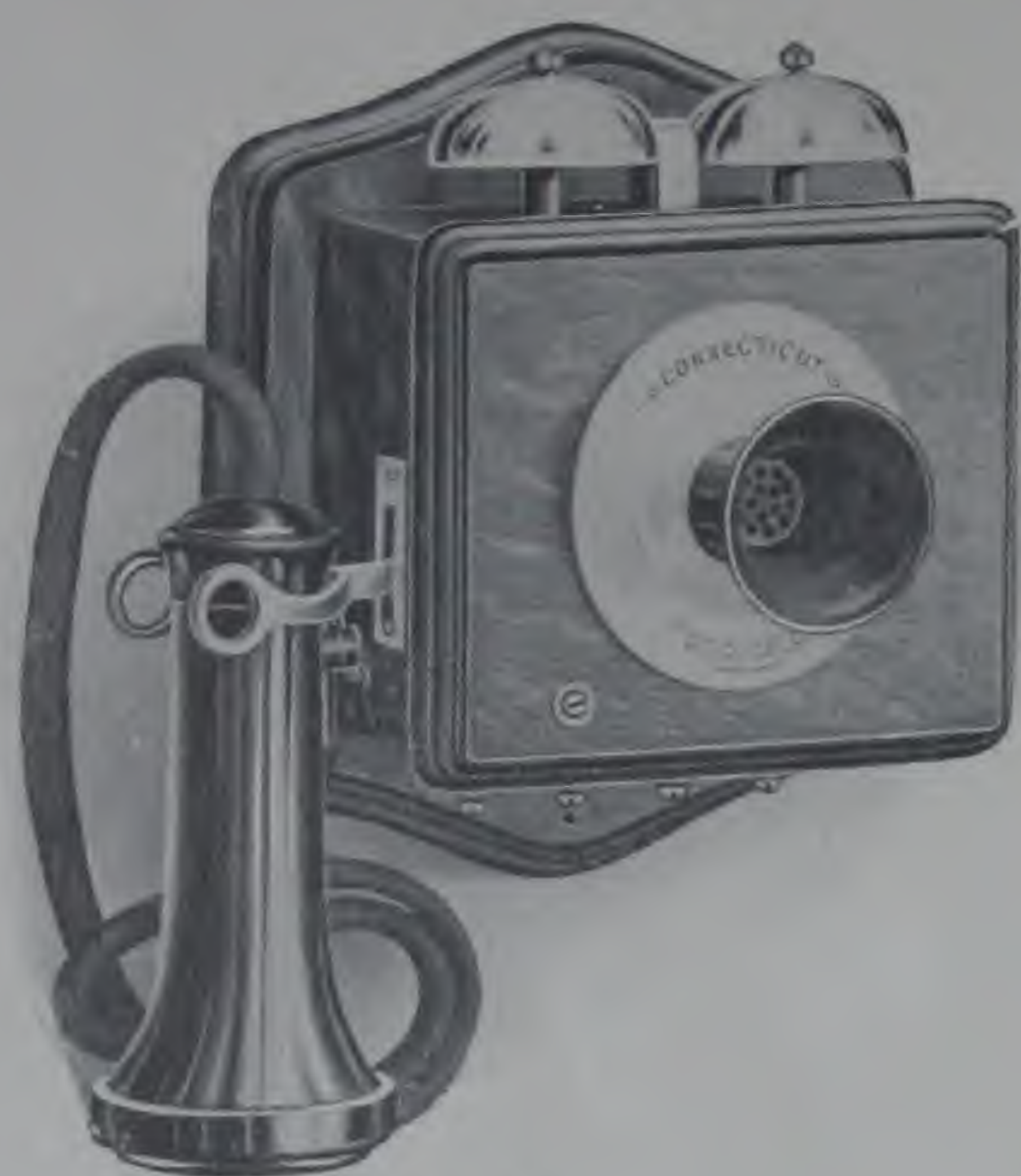
No. 2, Plain,  $\frac{1}{4}$ " grooves . . . . . Per 1000 feet.  
\$13.50



No. 10, Plain,  $\frac{1}{4}$  x 1" grooves . . . . . Per 1000 feet.  
\$17.00



## Battery Telephones



No. 30

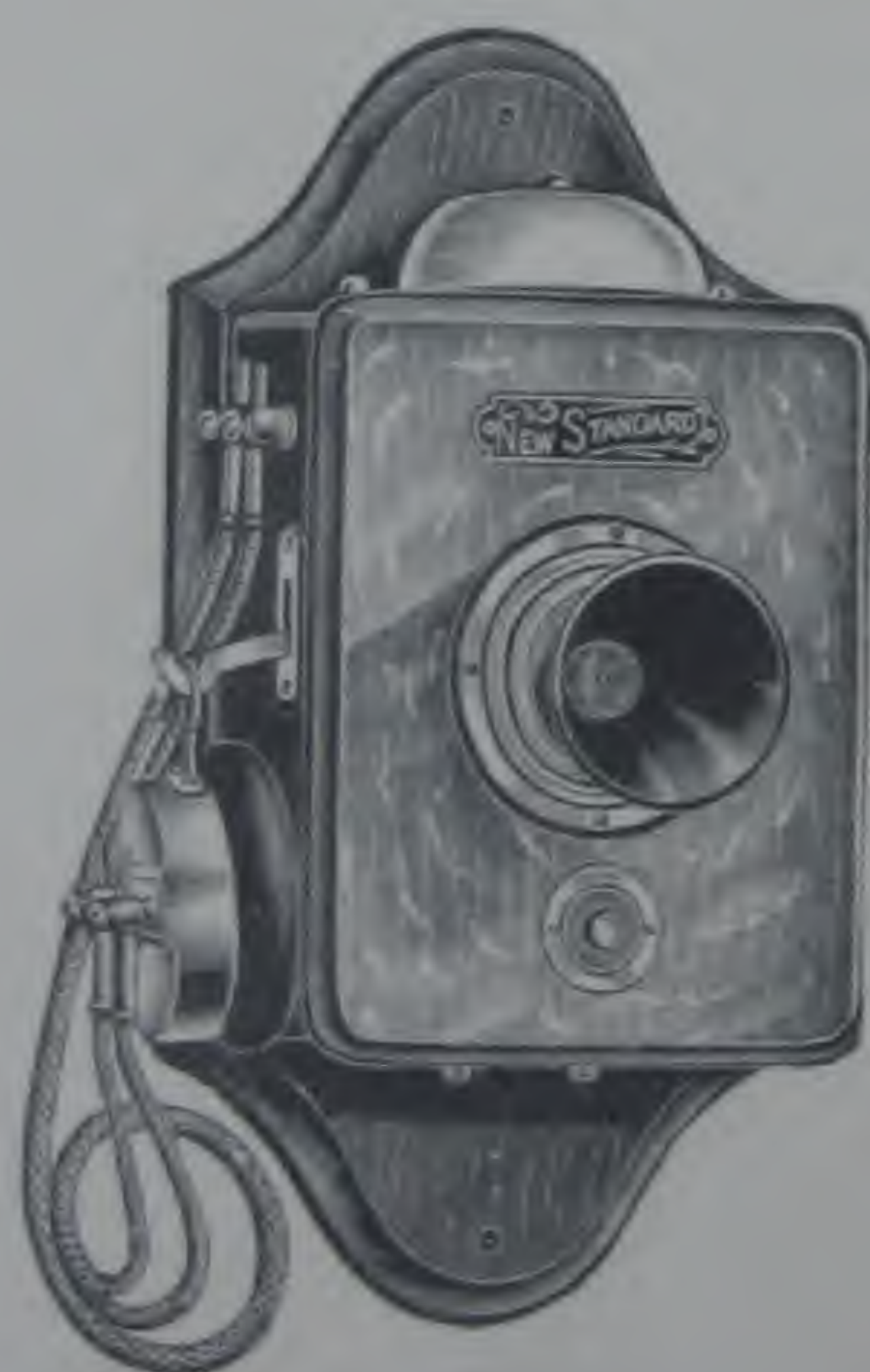


No. 25E

These telephones are strictly high-grade instruments, having long distance parts throughout. The induction coil of the desk phone is placed in the base of the instrument.

No. 30, Wall Telephone for Centerphone or Hotel System, each . . . . .	\$8.50
" 30, " " " Two-line work, each . . . . .	9.00
" 30, " " " Multiple System, each . . . . .	9.50
" 30, " " " Series Battery Call System, each . . . . .	11.00
" 25 E, Desk " " any of above systems, each . . . . .	15.00

Wired for two-line work unless otherwise specified.

New Standard  
Wall SetNew Standard  
Desk Set

These instruments are for two-line use and give universal satisfaction, each instrument is fitted with an induction coil, a good transmitter, and double pole watch case receiver. Each desk set is furnished with four foot of cable and terminal block.

Wall Telephones, per pair . . . \$9.15

Desk Telephones, each . . . \$8.30



## Battery Telephones



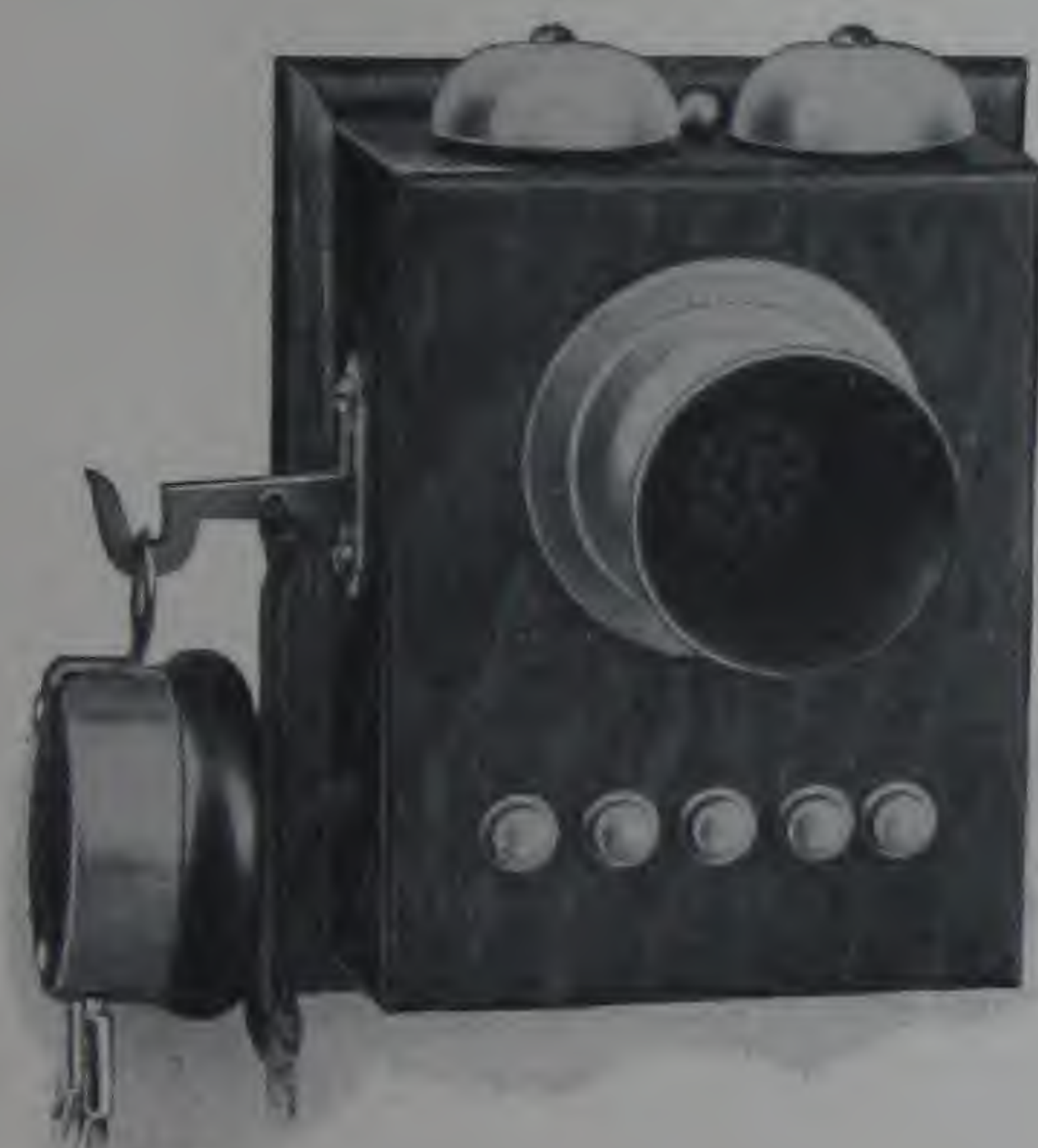
No. 52

### No. 52. Multiple Phone

Selective Ringing  
Highest Grade Long Distance Parts Throughout  
Centrally Located Batteries

This system has come into general use on account of its simplicity and few working parts. The speaking circuit of this phone is connected to a pair of wires common to all other stations, so that it will be understood that only two stations can be in use at the same time.

	Each.
No. 52, Wall Type, 6 buttons . . . . .	\$11.00
" 52E, Desk Type, 6 buttons . . . . .	17.00
Extra Buttons . . . . .	.30
Independence Coil, extra . . . . .	2.50



No. 32

### No. 32. Multiple Phone

Selective Ringing

The operation of this telephone is similar to No. 52, but is made up to meet the demand for a cheaper instrument.

	Each.
No. 32, Wall Type, 5 buttons . . . . .	\$8.00
" 32C, Desk Type, 5 buttons . . . . .	13.00
Impedence Coil, extra . . . . .	2.50

One Impedence Coil used for each system.



No. 73

### No. 73. Switch Intercommunicating Phone

Highest Grade Long Distance Parts Throughout  
Up-to-date Cable Connections

This system is automatic in the fact that it requires no return of the switch to the home point after using. Stations can be called without returning lever to the home point. To answer a call see that the switch lever rests on the home point which in every case will be that point on the extreme left.

	Each.
No. 73, Wall Type, 5 points . . . . .	\$11.00
" 73E, Desk Type, 5 points . . . . .	17.00
For each additional 5 points . . . . .	.50

Made up only in 5, 10, 15 and 20 points.



## Automatic Switchless Telephones



No. 35 B—Wall Type

This system is entirely automatic and non-interfering. Stations can be called with receiver on or off the hook. Buttons are automatically restored when receiver is returned to hook.

These phones are equipped with long distance parts throughout.

	Each,
No. 35 B, Wall Type, 10 buttons or less	\$17.00
" 38 B, Desk " 10 " " "	23.00
" 59 B, Flush " 10 " " " wood front	22.00
" 59 B, " " 10 " " " metal "	24.00
Extra Buttons (in sets of two)	.50

10 and 16 button phones are carried in stock, other sizes made to order.



No. 38 B—Desk Type



No. 59 B—Flush Type

GENERAL OR SUPERINTENDENT'S CALL—A master-calling button can be furnished on the office phone if desired, which will ring all the phones on the system simultaneously. This is for calling the superintendent, or it can be used as a fire alarm or general call. Price on application.



## Flush Metal Battery Telephones



No. 54

### No. 54. Intercommunicating Type

Designed for Residences, Apartment Houses, etc.  
Centrally Located Batteries.  $6\frac{1}{2} \times 10\frac{1}{2}$  inches for 10 buttons or less  
Phones can be arranged for any number of buttons

	Each.
No. 54, Brush brass or nickel finish, 6 buttons or less	\$13.00
" 54, Wood, dark oak finish, 6 buttons or less	12.00
Extra Buttons	.30

The above set is arranged for multiple system unless otherwise specified.  
Can be wired for apartment house or centerphone systems.

### No. 58. Metal Room Phone

$5 \times 7\frac{7}{8}$  inches

This style of phone is designed principally as an apartment or residence telephone and is used in connection with apartment and annunciator systems.

	Each.
No. 58, Brush brass or brush nickel finish.	\$10.50
" 58, Wood—Dark oak finish	9.90



No. 58

### Automatic Reset Telephone

Designed especially for City Exchange Connection

NON-INTERFERING TRUNK BUTTON. This trunk button cuts in the exchange and disconnects the phone from the entire system, thereby leaving no chance for interference. One or two trunk buttons per phone is sufficient to take care of all outside service.

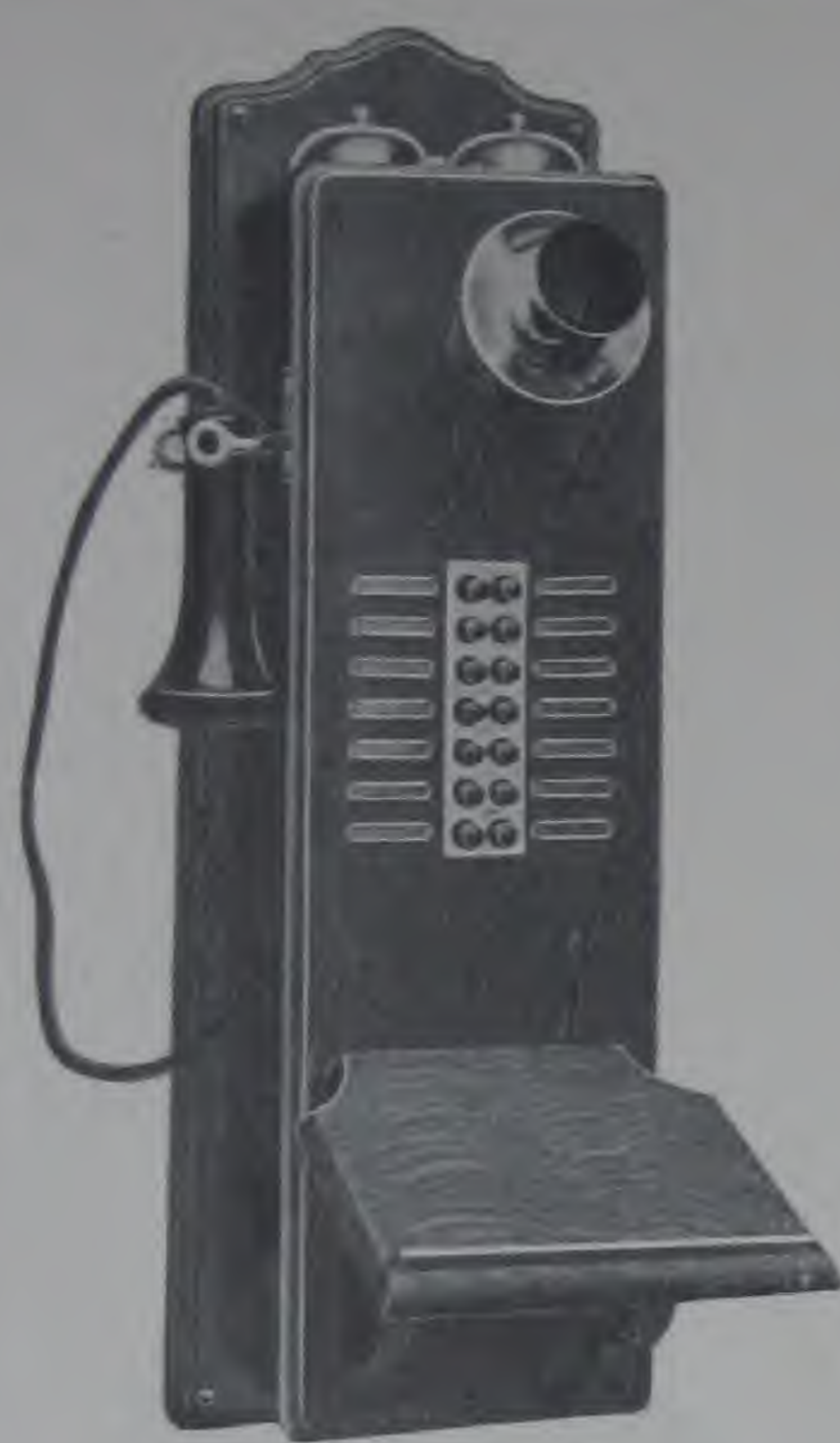
	Each.
No. 55, Wall Type, 8 buttons and 1 trunk button	\$19.00
" 48, Desk " 8 " " 1 " "	25.00
Extra Intercommunicating Buttons	.50
Extra Trunk Buttons	2.00

No. 48 Desk is same cabinet design as No. 38B.  
In ordering give complete description of exchange system.  
Full particulars, with diagrams, on request.



No. 55





No. 244  
Extreme length, 25 inches

## Magneto Telephones

### Automatic Switchless Magneto Intercommunicating Phone

All buttons automatically restored when receiver is returned to the hook.

This style of phone is specially designed where lines are too long to use battery power for calling. In this style a magneto is used for signaling. While this style is more expensive than a battery system, it has its advantages for various installations, and is preferred by many.

Long Distance Parts Used Throughout. Adjustable Swing-Joint Transmitter

	Each.
No. 244, Ten Buttons or less, Magneto Call	\$26.00
" 244A, " Points, Magneto Call, with circular hand switch	20.00
" 344, " Buttons or less, Battery Call	21.50
Extra Buttons	.50

Devices for use with No. 6 and No. 14 Bridging Telephones which are illustrated on next page

1. NON-INTERFERING RINGING DEVICE. This telephone is provided with a condenser in the receiver circuit which enables subscribers to ring through a bridging line when all or any part of the receivers are off the hooks. Add to each phone. \$1.00
2. SELECTIVE TWO OR FOUR-PARTY RINGER. Still another simple device enabling exchange to call two, three or four parties on same line without ringing the others. The subscribers do not ring each other in calling exchange. Reduces the ringing on heavily loaded party lines. For instance, if there are twelve telephones on a line it is reduced one-half by a two-party system; three-fourths by a four-party system. 2.00
3. DIVIDED CIRCUIT TELEPHONE. Provided with a biased ringer wired to the middle or ground line binding post, so that only one-half of the bells need be rung when calling on a bridging line. This instrument will operate as a two-party selective telephone. 2.00
4. WITH GROUNDING KEY. Bridging telephone with generator grounding key, by pushing a button central can be signaled without disturbing other parties on the same line. With the button in its normal position subscribers can call each other in the regular way without throwing the drop at central. 1.00
5. KICK COIL TELEPHONE. The operation of this set is similar to any common battery or central energy phone. By removing the receiver these coils set up a current sufficiently high to throw a 1000 ohm drop through from 35,000 to 45,000 ohms' resistance. Prices on application.

### Suggestions

A good deal depends upon the proper installation of intercommunicating systems. A good instrument can be spoiled by improper wiring. Good cable should be used and it should be properly protected by pipe in badly exposed places. Do not run cable in hot or damp places without some protection. Damp proof cable is all right for interior work and rubber or lead covered for exterior. Lead covered is preferred for outside use. Remember, dampness in a cable causes cross talk—a new cable is damp, and there may be slight cross talk at the start, which will disappear in a short time when the cable dries out. Don't use ordinary annunciator cable. Solder all connections, using junction boxes where you make cable joints.

Place centralized battery in intercommunicating systems at a central point in the system

### Telephone Troubles

SPUTTERING OR GRATING NOISE IN RECEIVER. Broken receiver cord or a poor connection at battery, transmitter or hook.

RINGING TWO BELLS AT ONCE. Section wires crossed.

CAN TALK, BUT CANNOT RING. Weak ringing battery or bell out of adjustment.

CAN RING, BUT CANNOT TALK. Weak talking battery, broken receiver cord, or hook does not make good upper contact.

FRVING SOUND IN TRANSMITTER. Too much talking battery.

CAN RING AND TALK, BUT CANNOT HEAR. Receiver trouble; either broken tinsel in cord or bent diaphragm, or dirt or metal chips between poles of magnet.



## Magneto Telephones

### Double and Triple Battery Box Magneto Telephones

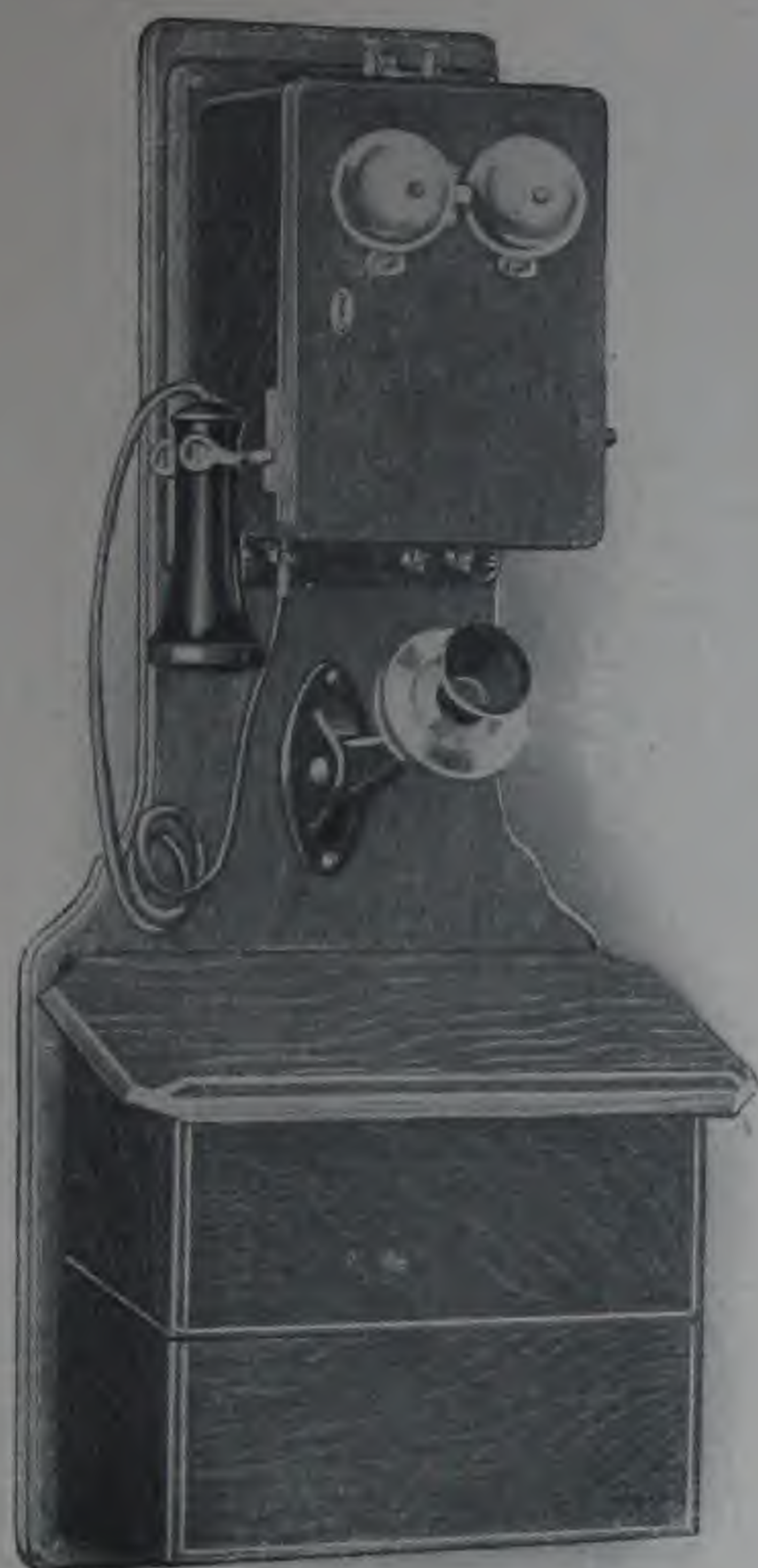
3, 4 or 5-Bar Generators

This Double Battery Box Telephone is arranged for three and four-bar generators.

This style is also made up with a capacity for three wet batteries which is No. 7, explained below. This type can be equipped with GIANT 5-BAR GENERATOR if desired.

Our Guarantee goes with each Telephone

	Each.
No. 6A. Series, 3-bar Generator, 80 ohm Ringer .	\$19.00
" 6R. Bridging, 3-bar Generator, 1000 ohm Ringer	21.00
" 6B. Series, 4-bar Generator, 80 ohm Ringer .	20.00
" 6C. Bridging, 4-bar Generator, 1000 ohm Ringer	22.00
" 6D. Bridging, 4-bar Generator, 1600 ohm Ringer	23.00
" 6P.L. Selective Party Line Telephone, 2500 ohm Bias Ringer . . . . .	25.00
" 7K. Equipped with Giant 5-bar Generator and 1600 ohm Ringer . . . . .	25.00
" 7K. Equipped with Giant 5-bar Generator and 2500 Ringer . . . . .	26.00

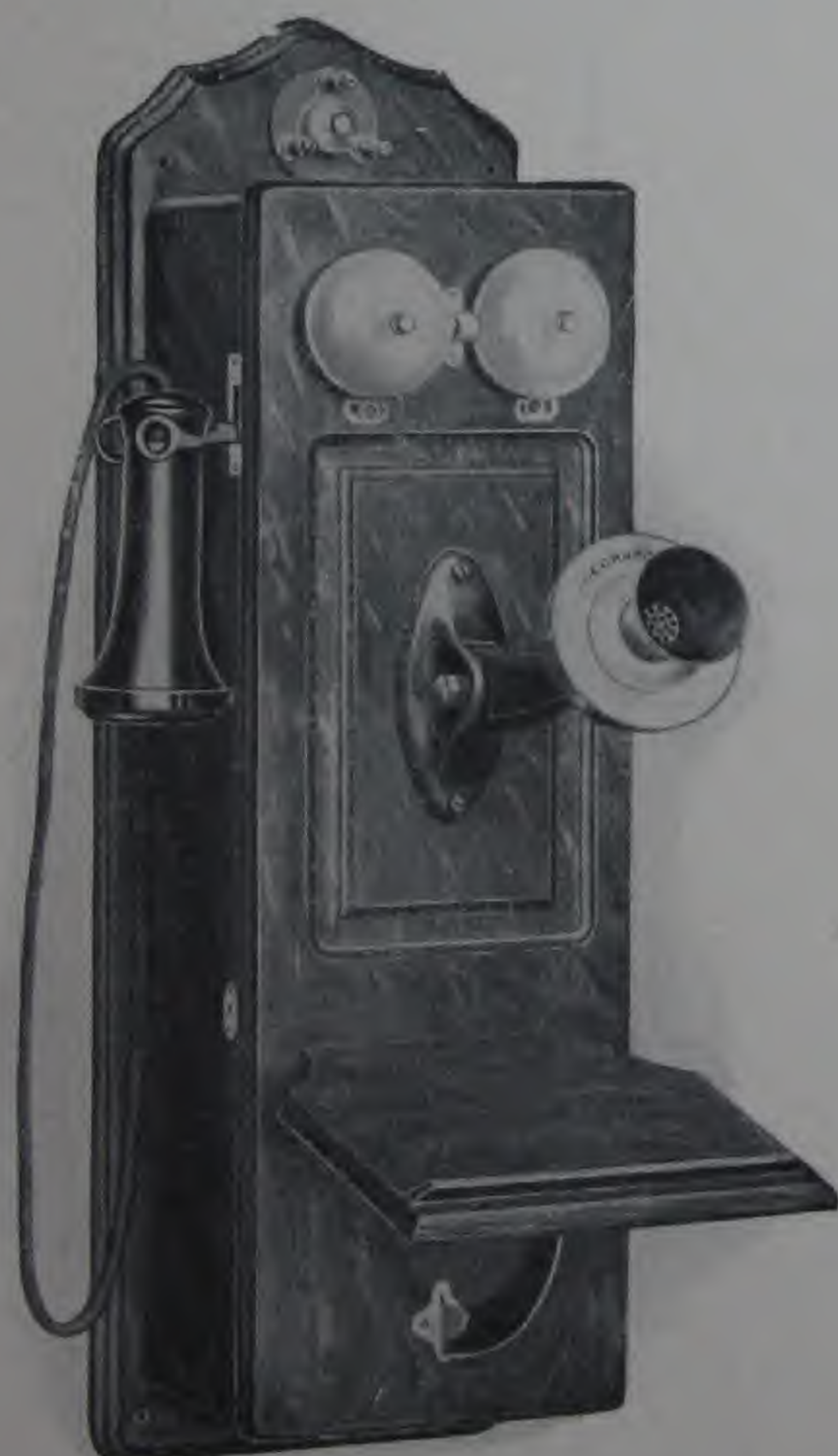


No. 6

### Compact Dry Cell Magneto Telephone

This instrument is one of the most popular styles of magneto instruments now on the market for series and bridging work. It has a very compact and durable cabinet designed to give easy access to all working parts of the instrument. The woodwork is well constructed, thoroughly seasoned and is highly finished, and furnished in quartered sawed oak. The standard long distance transmitter and receiver used on these instruments requires a comparatively small amount of current for the highest grade of voice transmission, insuring long life to the dry cells and reducing the items of maintenance to a minimum.

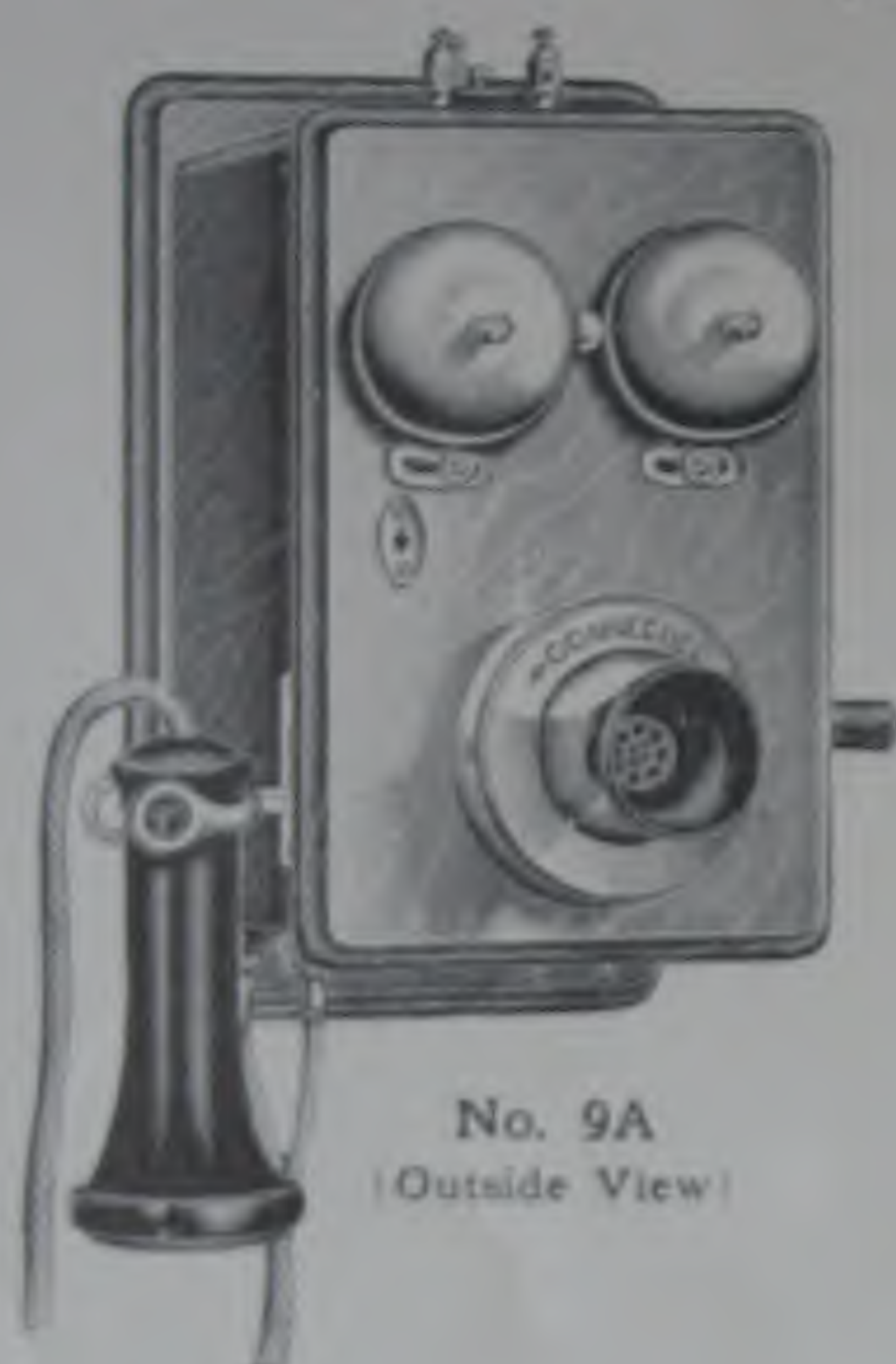
	Each.
No. 14A. Series, 3-bar Generator, 80 ohm Ringer .	\$18.00
" 14E. Bridging, 3-bar Generator, 1000 ohm Ringer	20.00
" 14B. Series, 4-bar Generator, 80 ohm Ringer .	19.00
" 14C. Bridging, 4-bar Generator, 1000 ohm Ringer	21.00
" 14D. Bridging, 4-bar Generator, 1600 ohm Ringer	22.00
" 14P.L. Selective Party Line Phone . . . . .	24.00



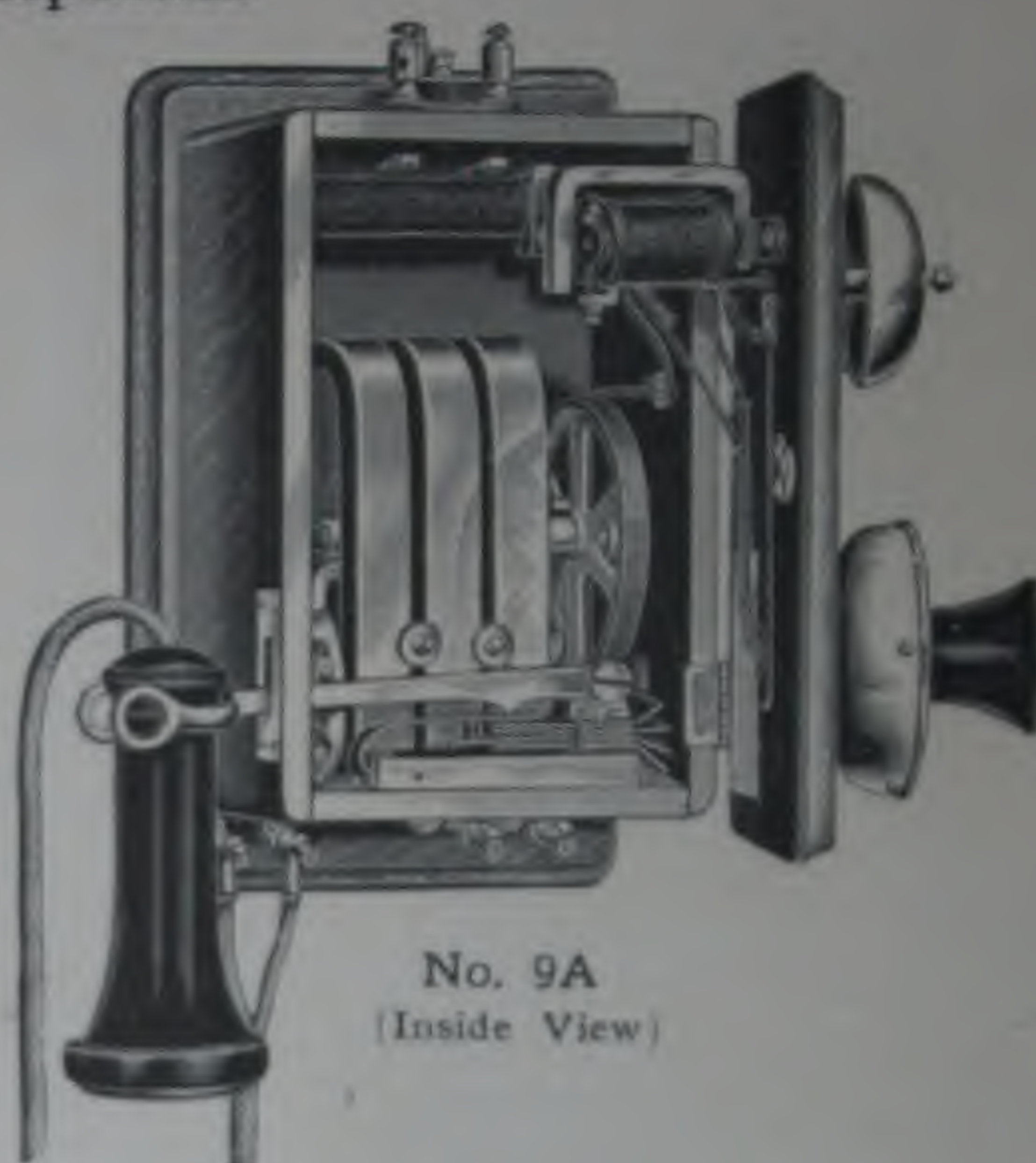
No. 14—With Folding Shelf



## Magneto Telephones



No. 9A  
(Outside View)



No. 9A  
(Inside View)

This type of instrument is very powerful, and, on account of its compact form, can be used where a battery box and backboard are not required. Batteries are placed in any convenient place and wired direct to the battery binding posts at the base of the instruments. This type combines all the qualifications of any of our standard long distance instruments.

	Each.
No. 9A. Series, 3-bar, 80 ohm Ringer	\$14.00
" 9B. Bridging, 3-bar, 1000 ohm Ringer	16.00
" 9C. Bridging, 4-bar, 1000 ohm Ringer	17.00
" 9D. Bridging, 4-bar, 1600 ohm Ringer	18.00
" 9E. Bridging, 5-bar, 1600 ohm Ringer	19.50
" 10. Additional to the above	2.00

No. 10 is the same as No. 9 with the exception that it is fitted with a battery box and backboard.



Type A

## Desk Telephone

As will be noticed from the illustration, all working parts of the Desk Stand are entirely enclosed, so that there is no possibility of its being tampered with, and is at the same time absolutely dust-proof. The hook switch is simple and durable and the contact springs are of German silver, tipped with pure platinum points. With this style the induction coil is placed on the terminal block, as the base is not large enough to accept the coil. The shell or stem can be hard rubber or full nickel as desired. This instrument can be used in connection with No. 30 wall phone, illustrated on page 46, instead of No. 25E.

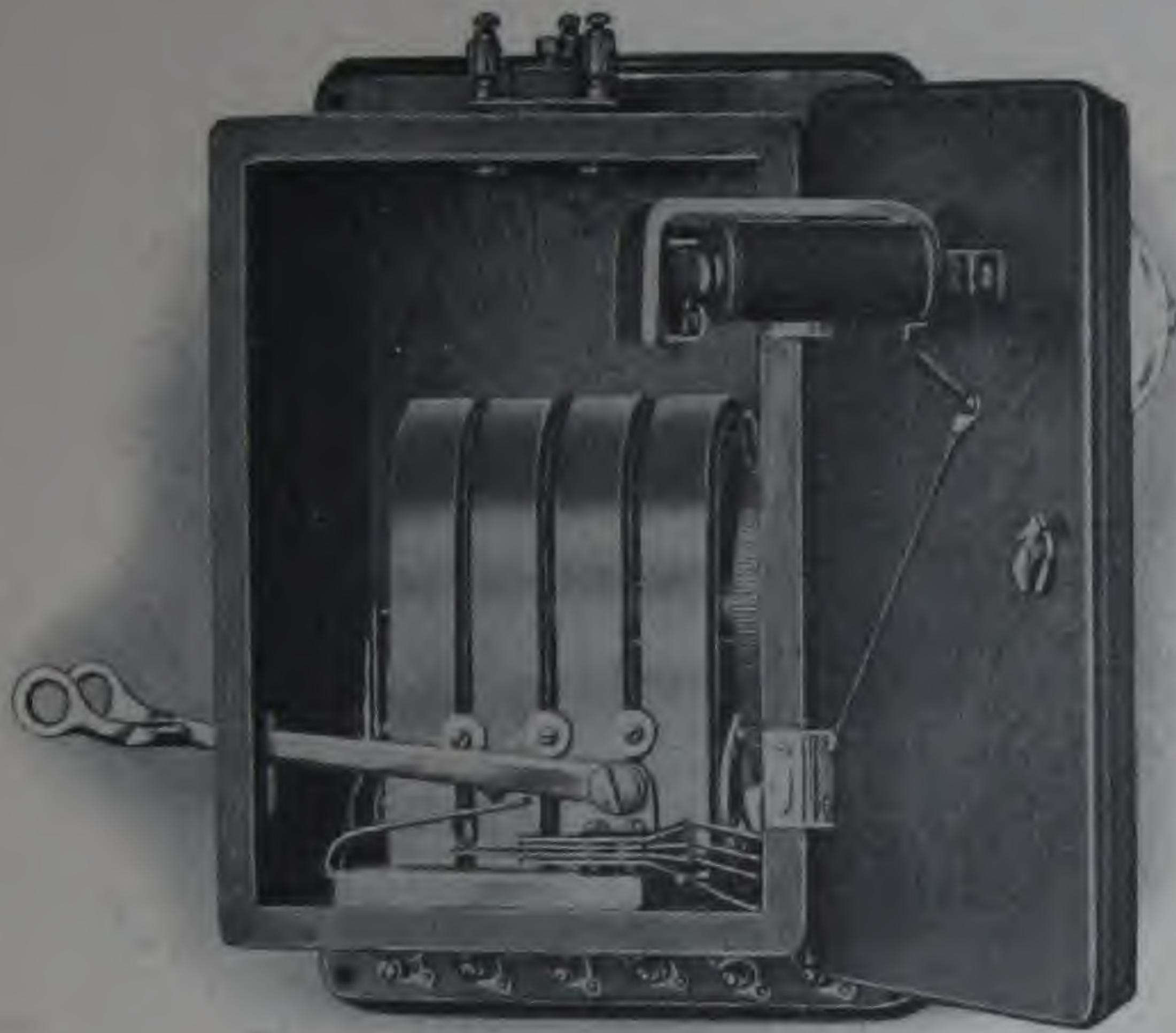
	Each.
No. 5A. Desk Phone without Magneto Bell	\$14.00
" 5A. With 82A Magneto Bell	20.00
" 5A. With 82C Magneto Bell	22.50
" 5A. With 82D Magneto Bell	23.50
" 5A. With 82K Magneto Bell, 1600 ohms	25.00
" 5A. With 82K Magneto Bell, 2500 ohms	26.00

Prices include Cords and Induction Coil.

For Magneto Bells, furnished with above, see page 53. Supplied without hook for this purpose. For Extension Bell and Hand Box Generator see page 55.



## Magneto Bells



No. 82

Each.

No. 82A.	Series, 3-bar Generator, 80 ohm Ringer	\$7.50
" 82E.	Bridging, 3-bar Generator, 1000 ohm Ringer	9.50
" 82B.	Series, 4-bar Generator, 80 ohm Ringer	8.50
" 82C.	Bridging, 4-bar Generator, 1000 ohm Ringer	10.00
" 82D.	Bridging, 4-bar Generator, 1600 ohm Ringer	11.00
" 82K.	Bridging, 5-bar Generator, 1600 ohm Ringer	12.50
" 82K.	Bridging, 5-bar Generator, 2500 ohm Ringer	13.50

NOTE.—Cut shows Magneto Bell with Hook and Binding posts ready for backboard. Hook is not furnished unless specified.

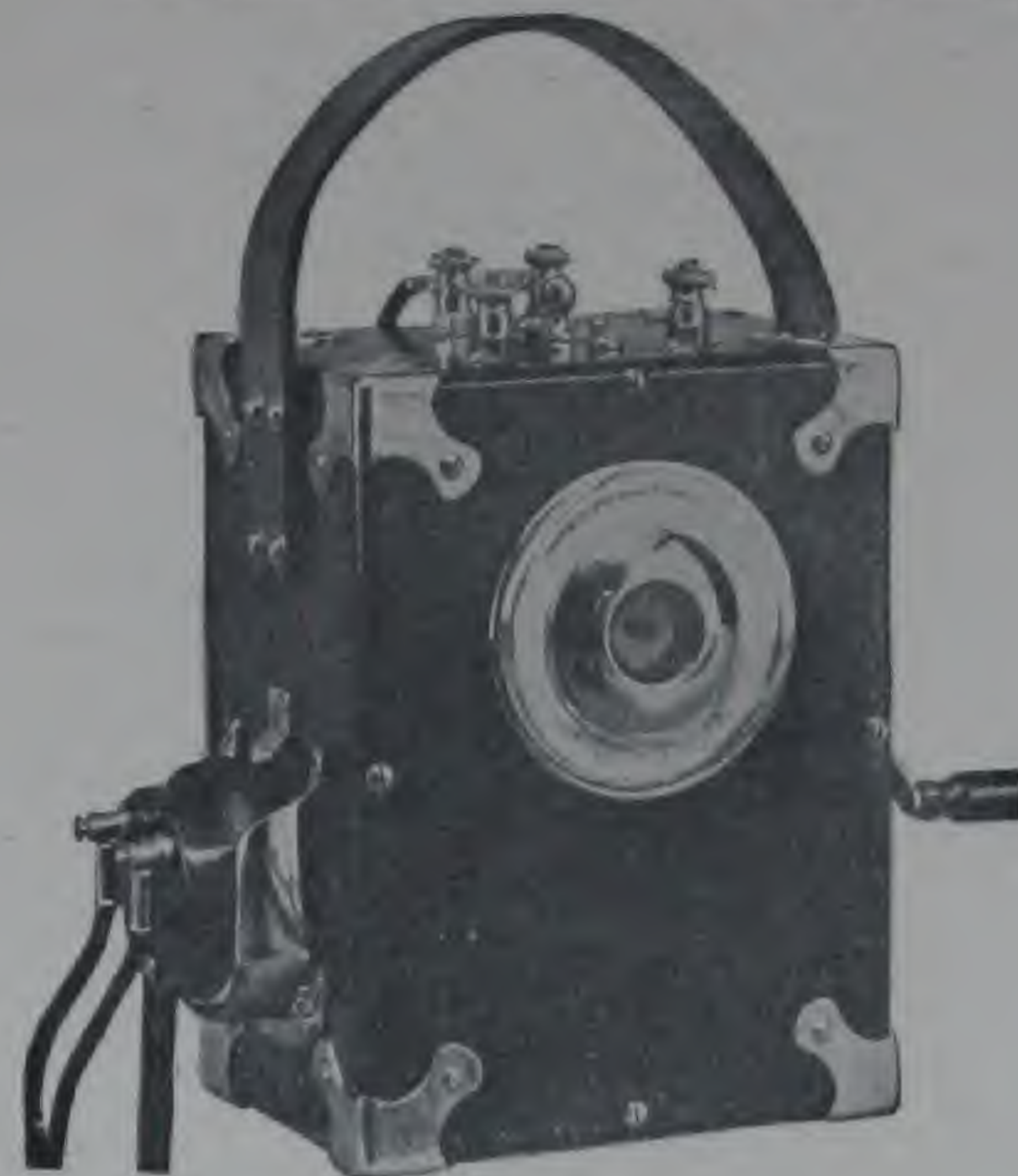
## Type "G," Hand Microphone



No. 5G.	For Magneto Call System, with Cords and Coil	Each. \$15.50
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Please state Series or Bridging. Can be wired for any of our Systems.

## Lineman's Test Telephones



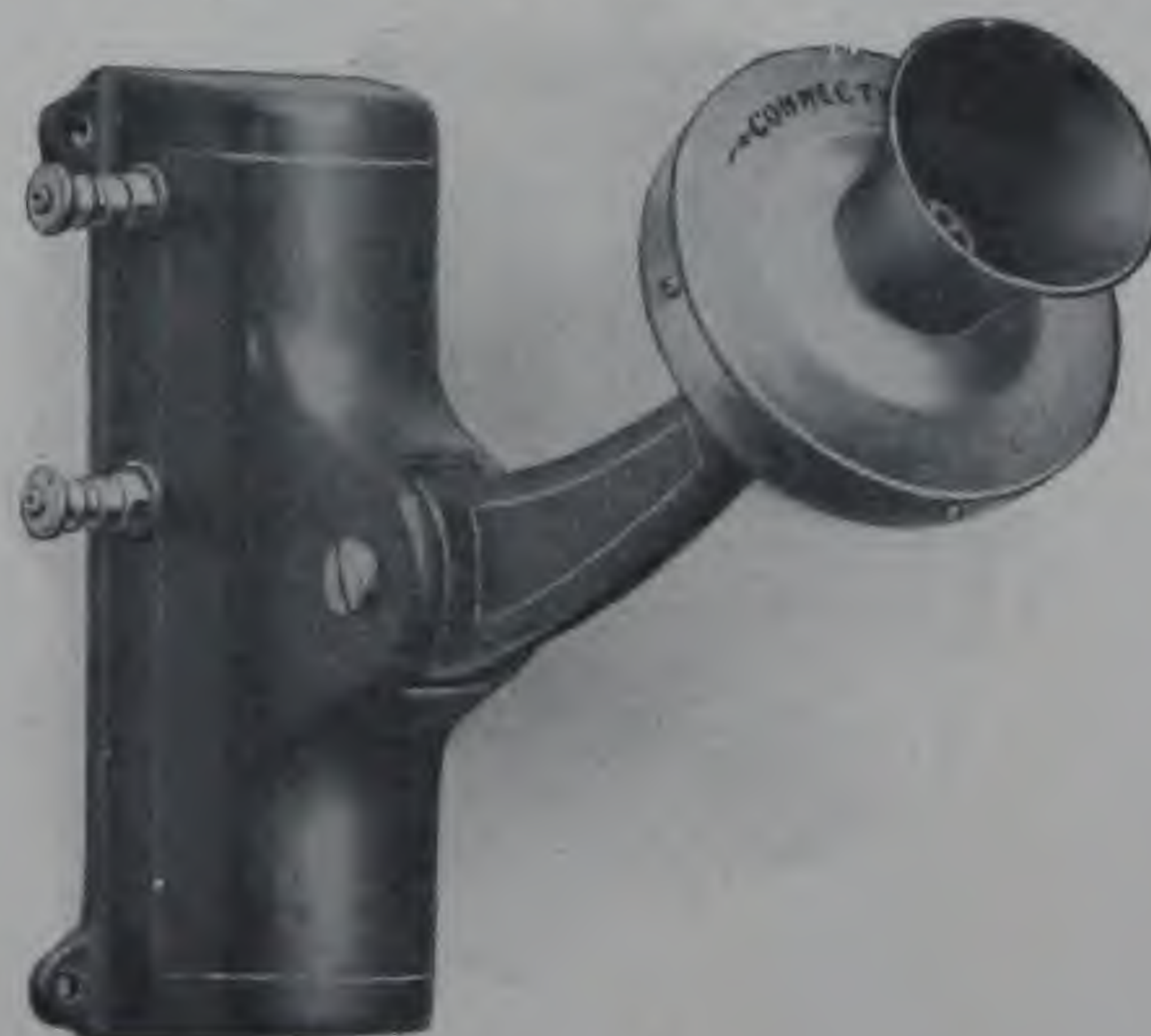
No. 31

With Heavy Metal Corners

This instrument is a complete telephone, with the latest solid-back transmitter, watch-case receiver, powerful generator, silk-insulated ringers and two cells of pocket dry batteries, and is the lightest and most durable test phone containing batteries that is made. This instrument will work any distance, and is suitable for testing electric light, telegraph, telephone lines, cables and wiring in buildings.

No. 31A.	80 ohm Series	Each. \$19.00
" 31B.	1000 ohm Bridging	22.00
" 31C.	1600 ohm Bridging	23.00

## Long Distance Transmitters



No. 42A

No. 45A.	Transmitter, suitable for long distance	Each.
" 45B.	Transmitter, fitted with short swinging joint	\$3.00
" 46.	Arm and base only	4.00
" 42A.	With Transmitter and Induction Coil	.80

## Telephone Mouthpieces

Each	. . . . .	\$0.15
------	-----------	--------



## Telephone Receivers



No. 71

Each.  
\$2.00

No. 1453

Each.  
\$1.60

## Operators' Head Receivers



No. 427

No. 427, with one Receiver  
" 425, " two ReceiversEach.  
\$4.00  
6.50

## Watch-case Receiver



Double Pole

Each

\$1.50

## Receiver Cords

## Two Conductor Worsted

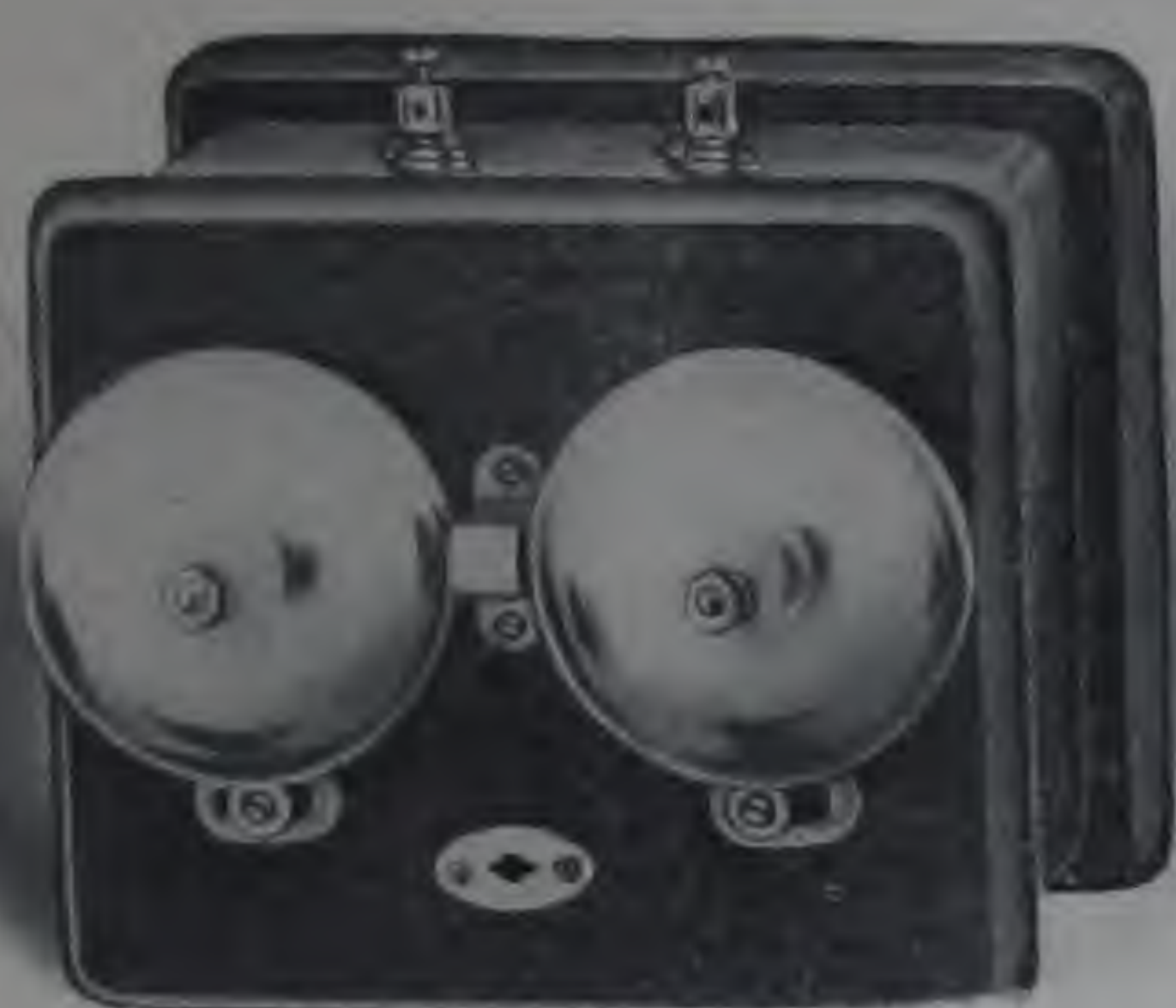
	Each.
2 feet . . . . .	\$0.25
2½ feet . . . . .	.30
3 feet . . . . .	.35
6 feet . . . . .	.70

## Two Conductor Silk

	Each.
2 feet . . . . .	\$0.40
2½ feet . . . . .	.50
3 feet . . . . .	.70
6 feet . . . . .	1.20



## Extension Bell



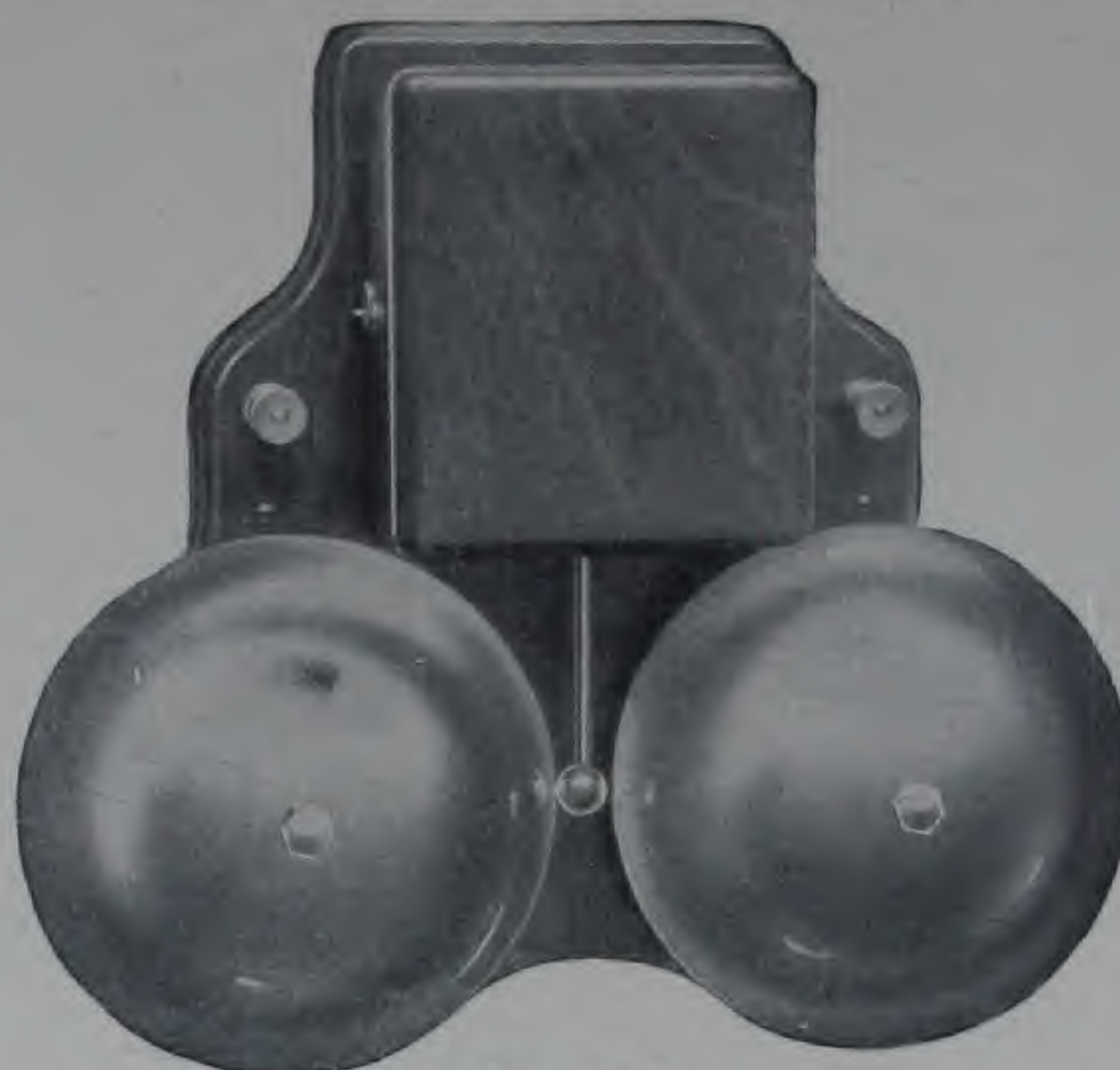
No. 88

Extension Bells are designed for use in circuit with a magneto or at a distance from the regular telephone.

		Each.
No. 88.	80 ohm Ringer	\$3.00
" 89.	1000 " "	5.00
" 90.	1600 " "	6.00
" 91.	2500 " "	6.50

Also made up as an Extension Buzzer.

## Loud Ringing Extension Bell



No. 565

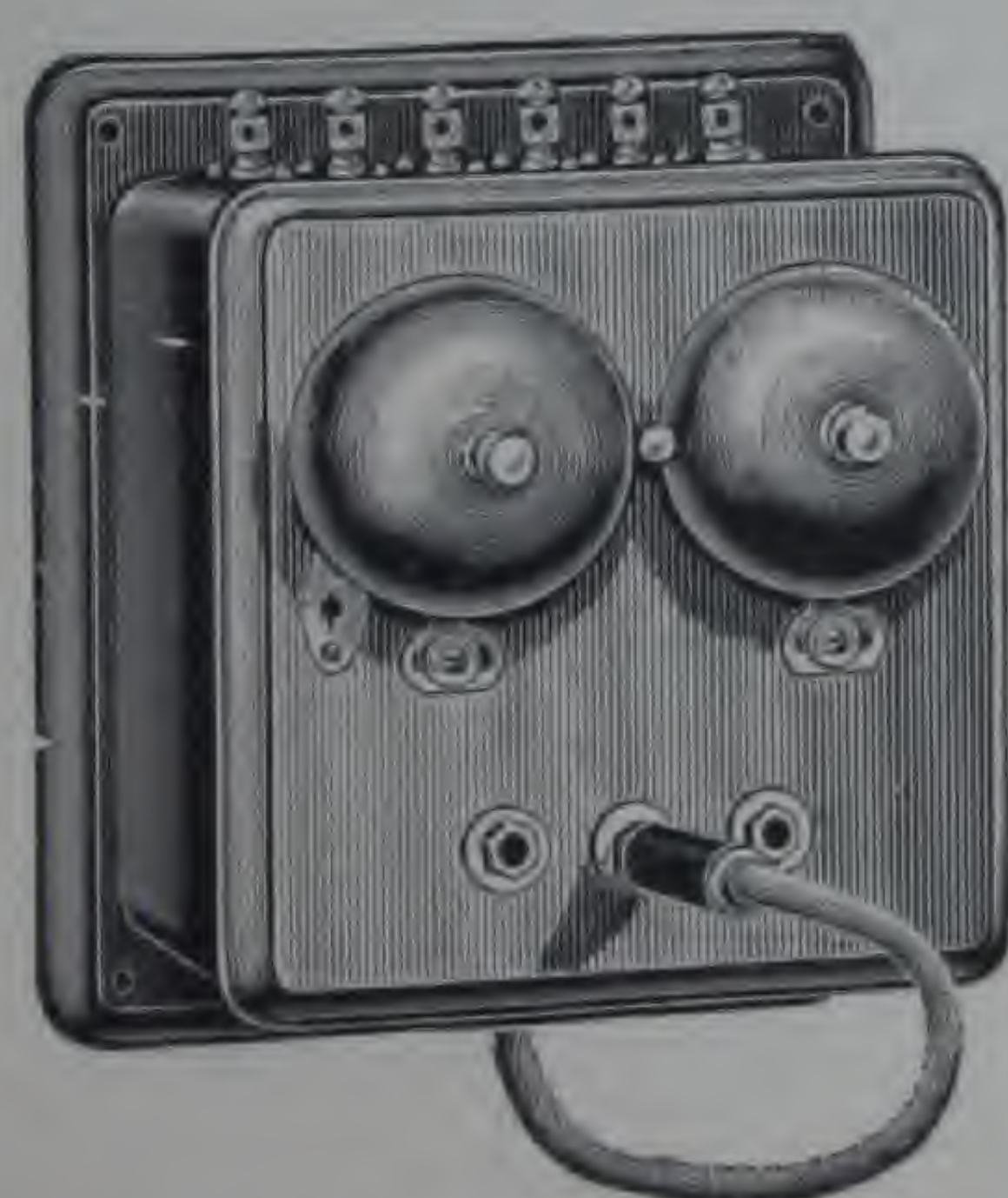
Length, 13 inches

The accompanying cut illustrates a very convenient type of Extension Bell. It is adapted for many places where the noise is so great that it is impossible to hear the ordinary ring of the telephone.

		Each.
No. 565.	80 ohms	\$10.00
" 566.	1000 " "	11.10
" 567.	1600 " "	11.80

Can be supplied with condenser if desired.

## Combined Jack and Extension Bell



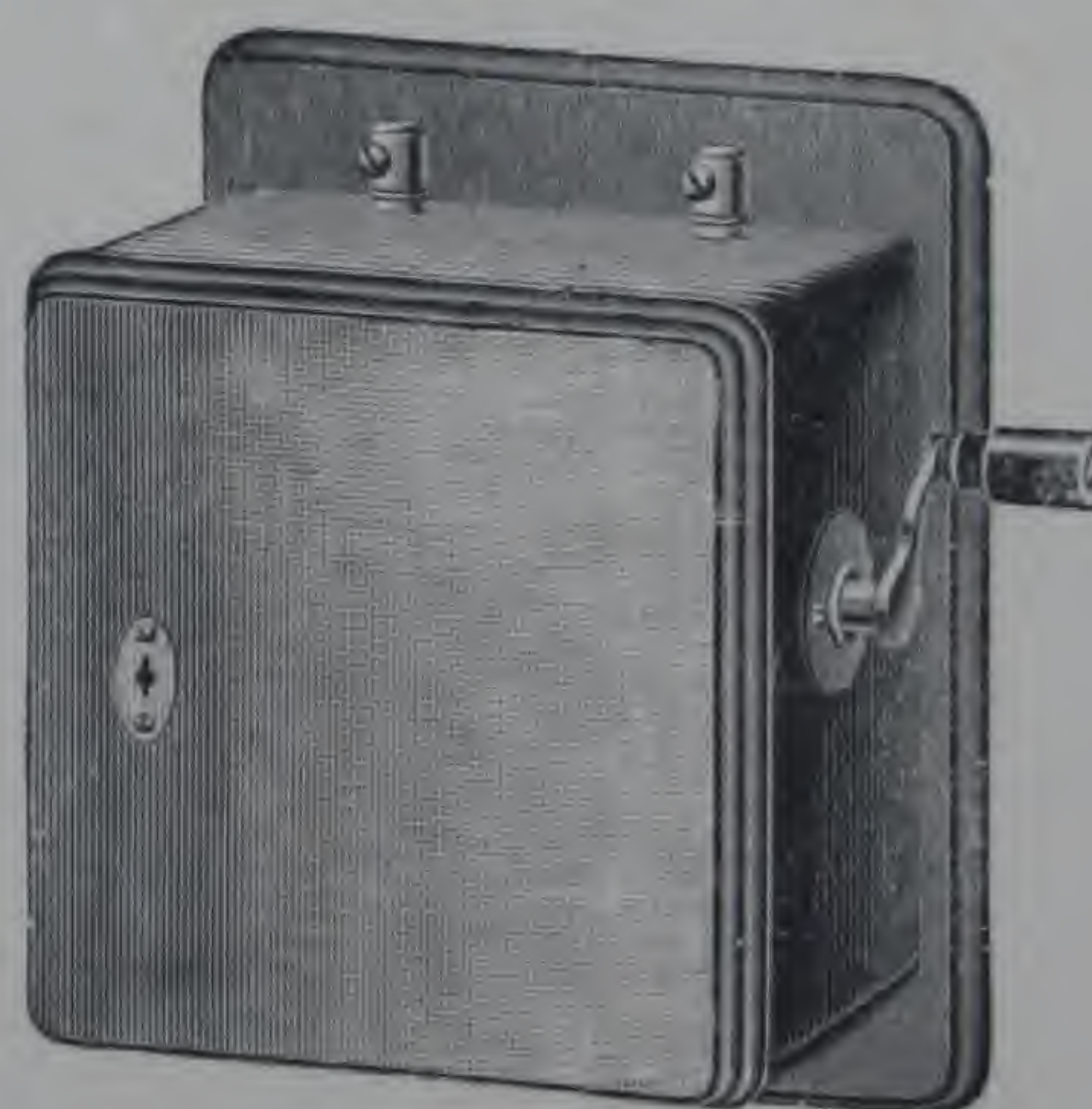
No. 99

It frequently happens that country lines become too heavily loaded to be satisfactorily operated, and it becomes necessary to cut the line in two at a given point, which is done by this service. The bell is also intended for connecting two farmers' lines and is so arranged that when either line signals the central point either the telephone bell or the bell mounted in the device itself will ring, depending entirely upon the location of the plug. When the plug is in the middle jack both lines are connected through, and the home telephone also bridged on the line.

		Each.
No. 99A.	80 ohms	\$10.50
" 99B.	1000 " "	12.00
" 99C.	1600 " "	12.50
" 99D.	2000 " "	13.00

Furnished complete, as shown in cut, with cord and plug.

## Hand Box Generators



No. 370

Any one of these Generators can be mounted in a special box for desk use. We can also supply any extra length of handles up to 18 inches if desired.

		Each.
No. 370.	3 Magnet Series	\$6.00
" 371.	4 " "	7.00
" 372.	3 " Bridging	6.00
" 373.	4 " "	7.00
" 374.	5 " "	10.00



## Baird Telephone Pay Stations



No. 13

	Each.
No. 10, one slot for nickels, height $9\frac{3}{4}$ " , width $3\frac{5}{8}$ " . . . . .	\$4.00
" 11, " " " dimes, " $9\frac{3}{4}$ " , " $3\frac{5}{8}$ " . . . . .	4.00
" 125, " " " quarters, " $9\frac{3}{4}$ " , " $3\frac{5}{8}$ " . . . . .	4.00
" 12, two " " nickels and dimes, height $9\frac{1}{2}$ " , width $3\frac{1}{2}$ " . . . . .	6.00
" 13, three " " " dimes and quarters, height $9\frac{1}{2}$ " , width $3\frac{1}{2}$ " . . . . .	8.00
" 133, " " " " " " " $9\frac{1}{2}$ " , " 5" . . . . .	9.00
" 14, four " " " " " quarters and halves, height $9\frac{3}{4}$ " , width 5" . . . . .	10.00
Burglar Alarm Fittings on any of the above, extra . . . . .	2.00

## Telephone Brackets

Two Swing Meilink  
(One Phone)Three Swing Meilink  
(Two Phones)

	Each.
Style A, two Swing, one Phone . . . . .	\$2.50
" B, " " two " . . . . .	4.00
" C, three " one " . . . . .	4.00
" D, " " two " . . . . .	5.00

Above Brackets furnished for flat-top desks at same prices.

## Benbow Brackets

	Each.
No 1, 12 inches . . . . .	\$2.50
" 2, 18 " . . . . .	3.00
" 3, 24 " . . . . .	4.00

Standard Finish Ox Copper

For nickel finish . . . . . \$1.00 extra

For roll or flat-top desk.



Benbow Bracket



## Telephone Brackets



Ad-a-link Bracket

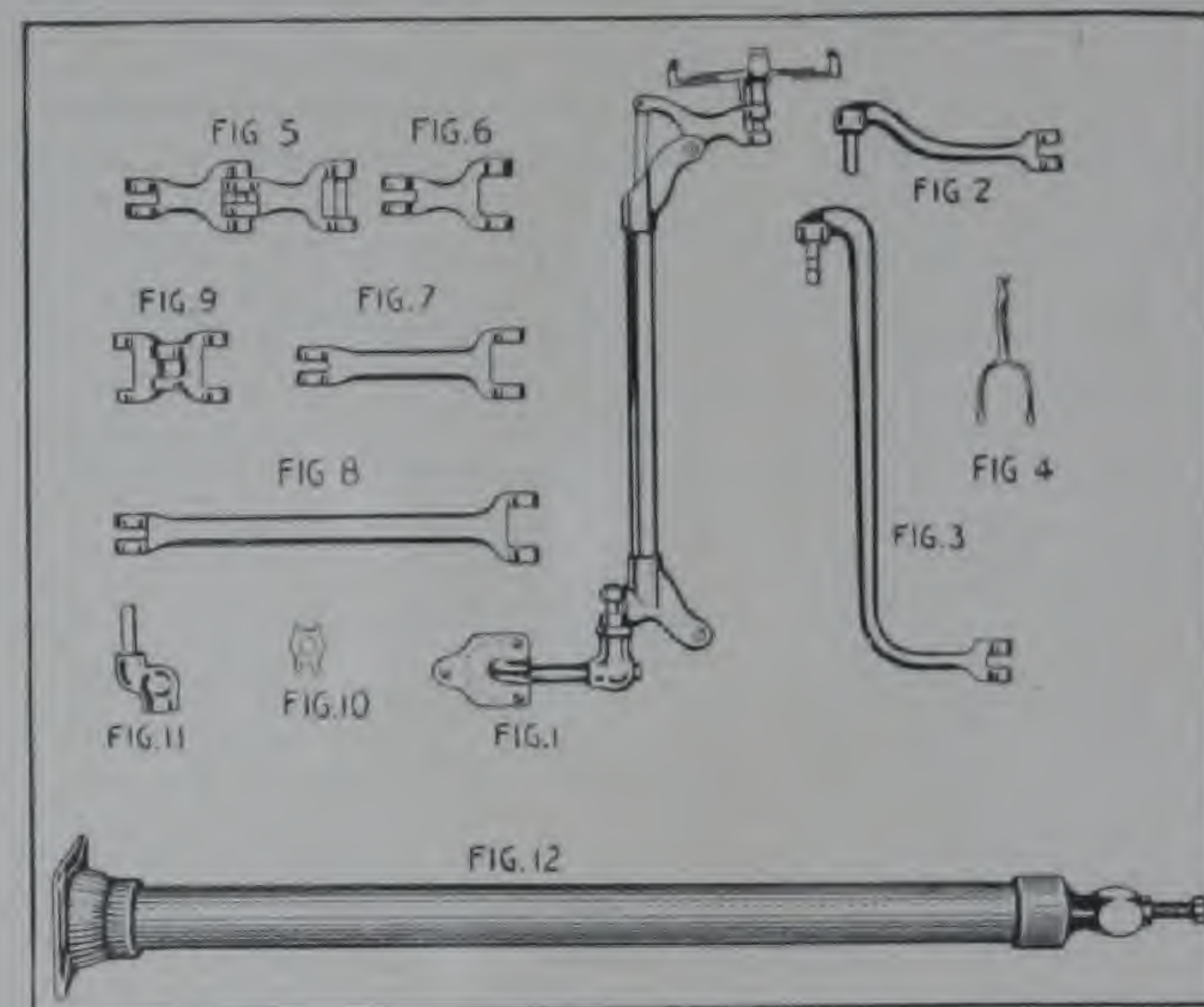
18" Complete (3 six inch links) . . . . .	\$2.50
3" Links only . . . . .	.35
6" " " . . . . .	.50
12" " " . . . . .	.75



Equipoise Bracket

Single arm, length 23 inches . . . . .	\$4.50
Two arm, length 23 inches . . . . .	9.00

Supplied for either flat or roll top desks.



Equipoise Bracket Parts

The standard length is 23 inches, but any desired style, shape, etc., can be made with above parts ranging from 16 to 41 inches.

## Equipoise Bracket Parts

SIX INCH EXTENSION (Fig. 2), for upper end of Arm; when extended brings mouth-piece 29 inches from pivot . . . . .	\$0.50
DROP EXTENSION (Fig. 3), to use on top of roll top desks or similar positions, 10 inch Drop 75c.; 15 inch Drop . . . . .	1.00
THREE INCH LINKS (Figs. 5 and 6), used singly or in combination when linked together as a chain with the Equipoise Arm at the outer end, the phone and arm can be swung around corners, partitions, posts, etc. Each . . . . .	.35
SIX INCH LINK (Fig. 7), used similar to the three inch link, for extending the arms . . . . .	.50
TWELVE INCH LINK (Fig. 8), used singly with Equipoise Arm giving a reach of 35 inches, or in connection with 6 inch extension (Fig. 2), giving a reach of 41 inches . . . . .	.75
YOKE (Fig. 9), for connecting two Equipoise Arms on one pivot, permitting arms to swing independently of each other or in unison . . . . .	.35
(Furnished free if ordered with two arms; in place of the one Desk attachment).	

VERTICAL HEAD (Fig. 11), for end of attaching bracket; used only when it is desired to fasten the Equipoise Arm to the end of a flat top desk, or to the wall, and must be specified with the order, otherwise the regular attaching head will be sent.	
SPECIAL DROP CLAMP, for extra high roll tops; securely clamps to the stem of the 'phone and gives an additional drop of four to six inches (Furnished free if ordered with arm).	.35
FLOOR STAND (Fig. 12), to be screwed to the floor in any convenient place, prevents marring of desk or furnishings, and will carry one, two or three arms and 'phones to two or more desks up to six and eight feet apart . . . . .	2.50

The Equipoise Arms and parts are beautifully finished in Gun metal or Nickel. Gun metal is usually preferred and always sent unless Nickel is specified.



## Junction Boxes



No. 57

For making Cable Joints for Intercommunicating Systems.

These junction boxes fill a long felt want for a reasonable priced device for making cable connections at junctions where phones wish to be connected off the main cable.

The proper thing for cable joints. Hard rubber connections.

No. 57, any size, Made up to 25 Clips . . . Each. \$2.50

## Switch Block



No. 144

	Each.
5 Points . . . . .	\$1.00
10 " . . . . .	1.50
15 " . . . . .	2.00
20 " . . . . .	2.50

## Ground Wire Clamp



For Telephone Work

	Each.
No. 1 fits $\frac{3}{8}$ , $\frac{1}{2}$ , 1, and $1\frac{1}{4}$ -inch pipe . . .	\$0.40
No. 2 fits $1\frac{1}{2}$ , 2, $2\frac{1}{2}$ and 3-inch pipe . . .	.50

Telephone Cables of all kinds furnished to order. A complete line of weather-proof and damp-proof Office Wires carried in stock. Prices on application.

## Telephone Induction Coil



Mounted on Wood Block and with Binding Posts

	Each.
50 Ohms . . . . .	\$2.00
100 " . . . . .	2.20
250 " . . . . .	2.40

Unmounted

	Each.
50 Ohms . . . . .	\$0.80
100 " . . . . .	1.00
250 " . . . . .	1.20

## Impedence Coils

Each	
	\$2.50



## Line Material



Yellow Pine Painted Cross Arms

Per running foot . . . . . \$0.10

Locust Pins



Per 100 . . . . . \$4.00

Duplex Pins



Per 100 . . . . . \$5.00

Painted Oak Brackets



Per 100 . . . . . \$4.00

Glass Insulators



Pony, per 100 . . . . . \$2.30  
 Deep groove . . . . . 6.00  
 " " Double petticoat . . . . . 7.50

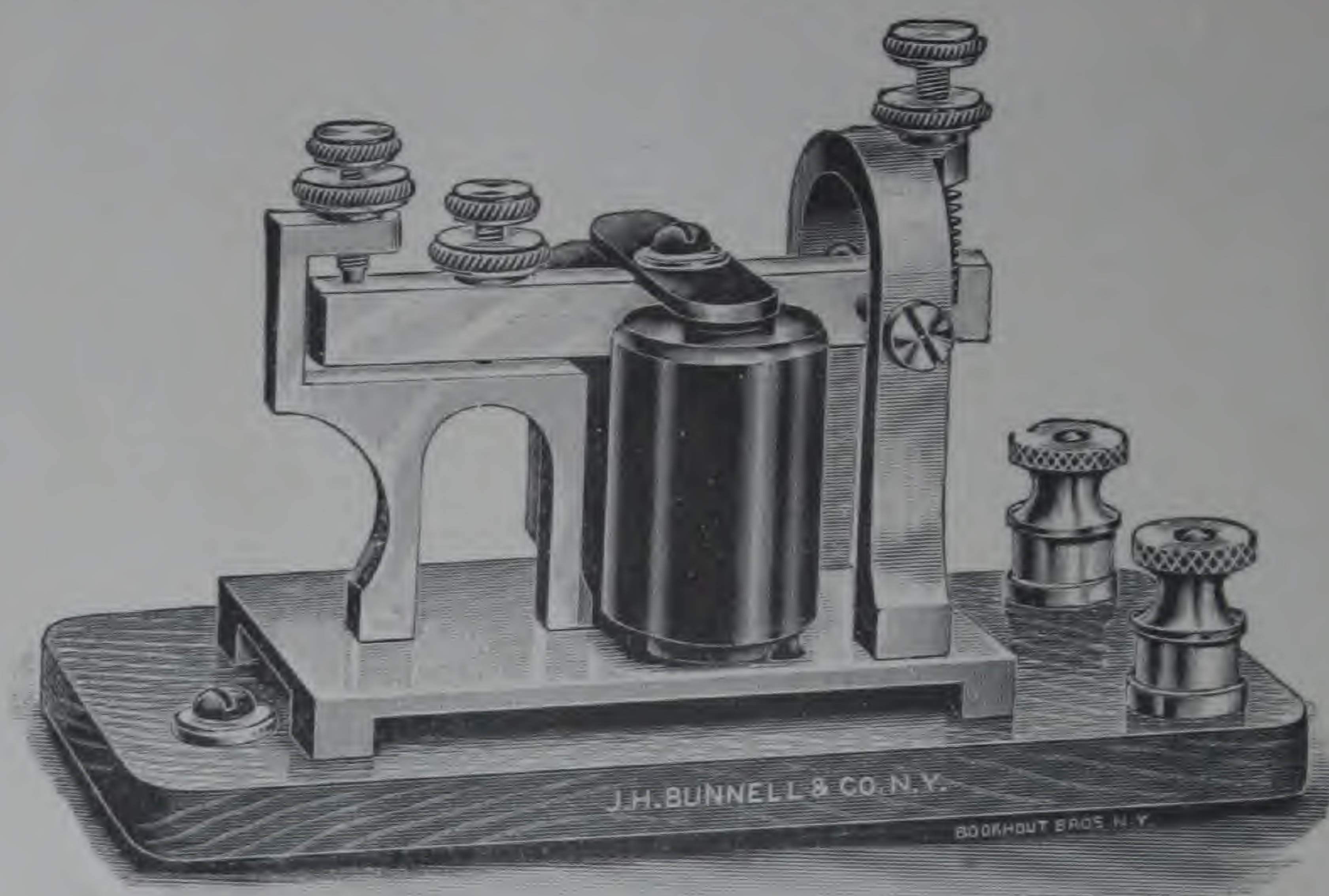
Duplex Pony Glass Insulators



Per 100 . . . . . \$7.00

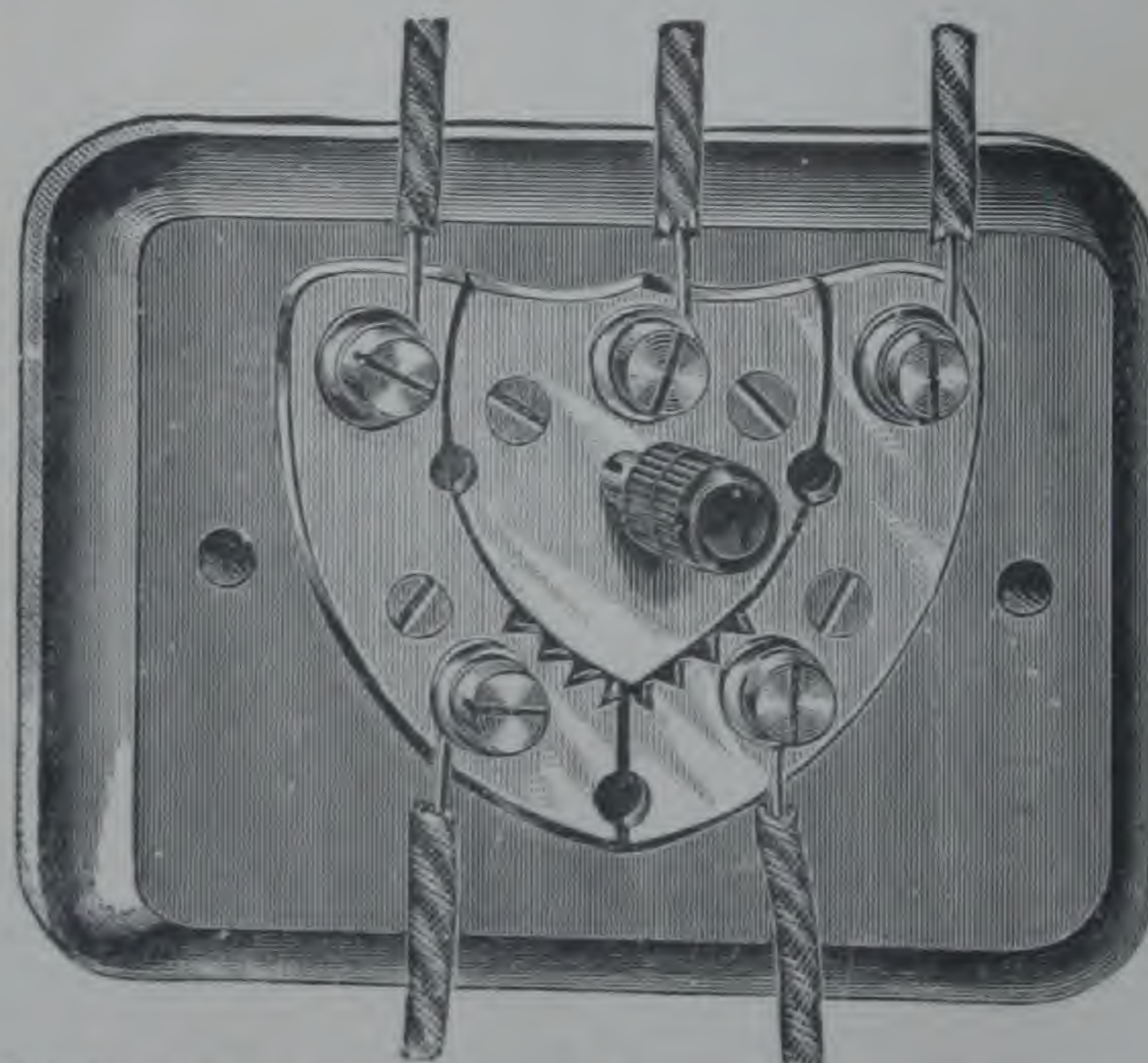


## Telegraph Instruments



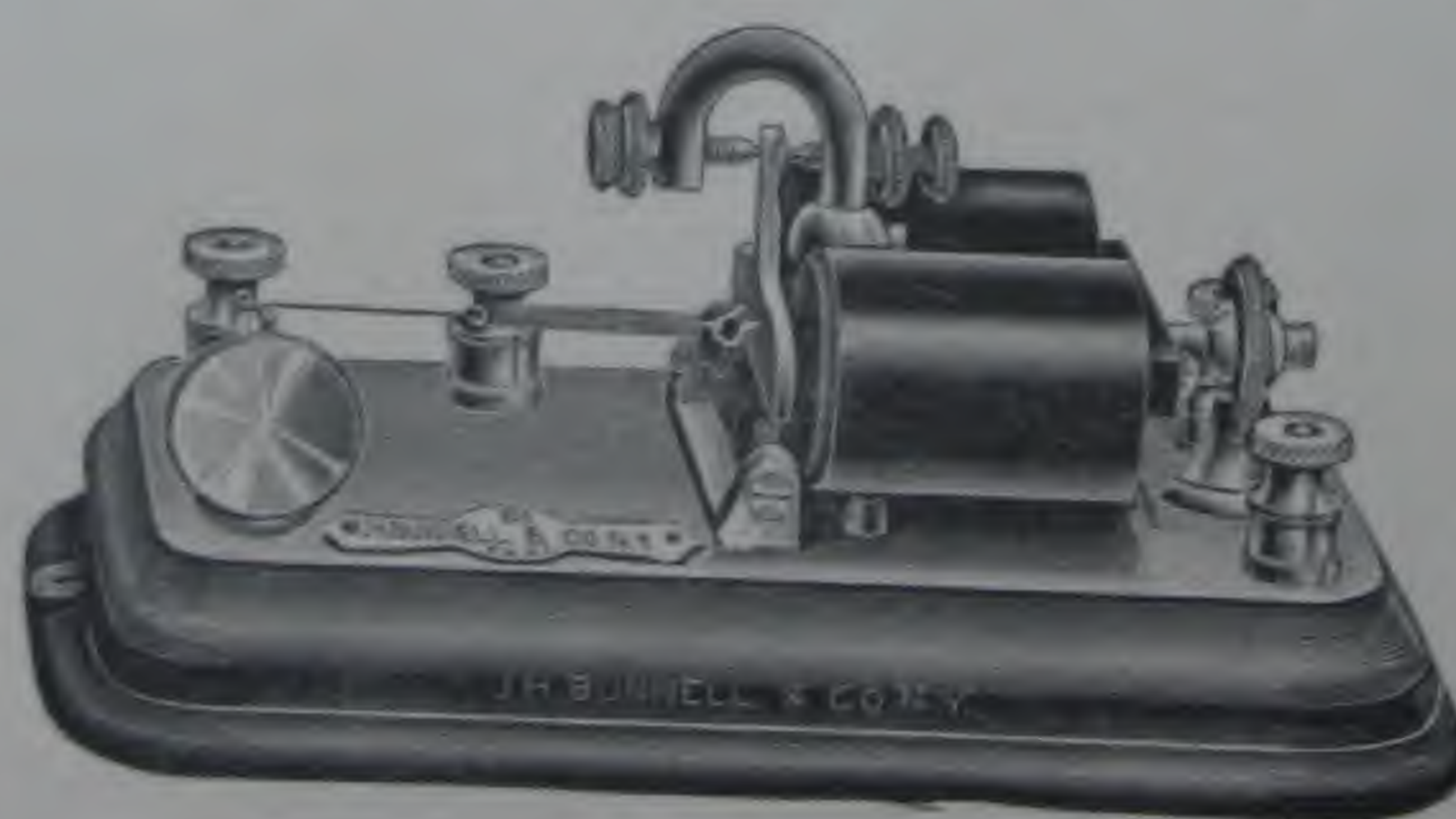
Each . . . . . Giant Sounders

\$4.00



Each . . . . . Lightning Arrester and Ground Wire Switch

\$1.00

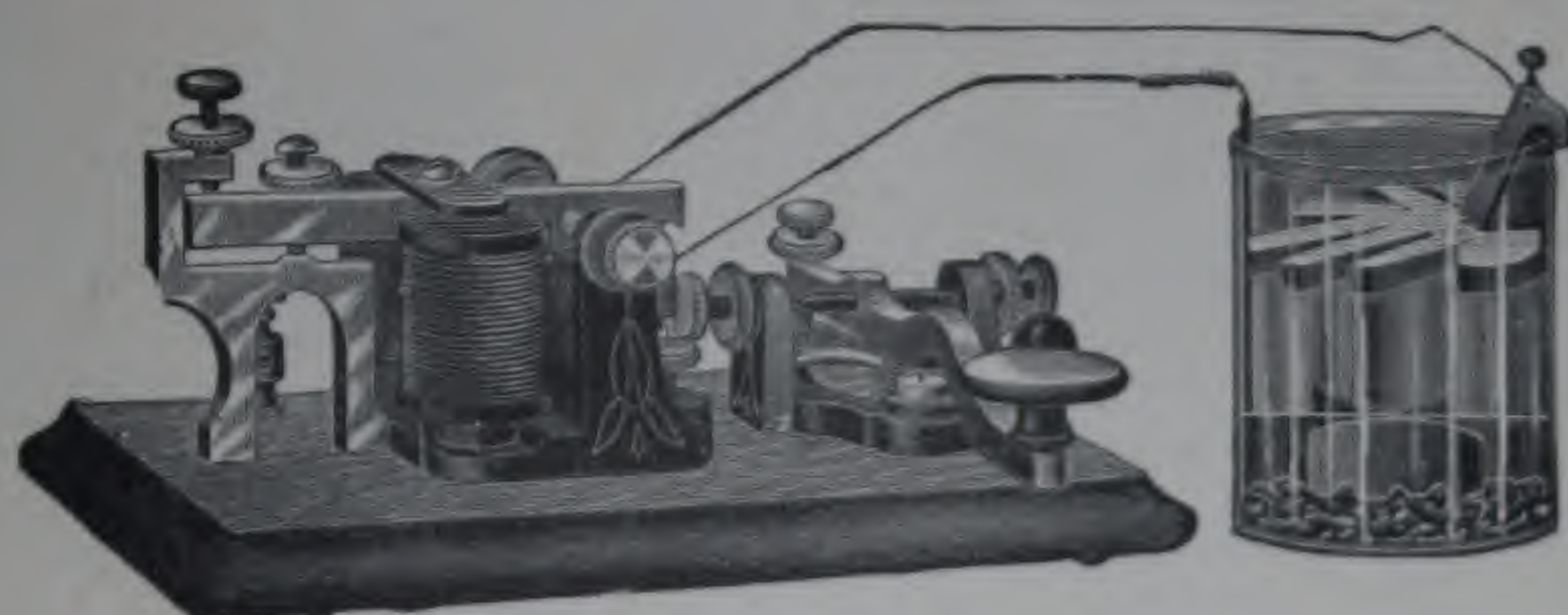


Each . . . . . Pony Relays

\$4.50



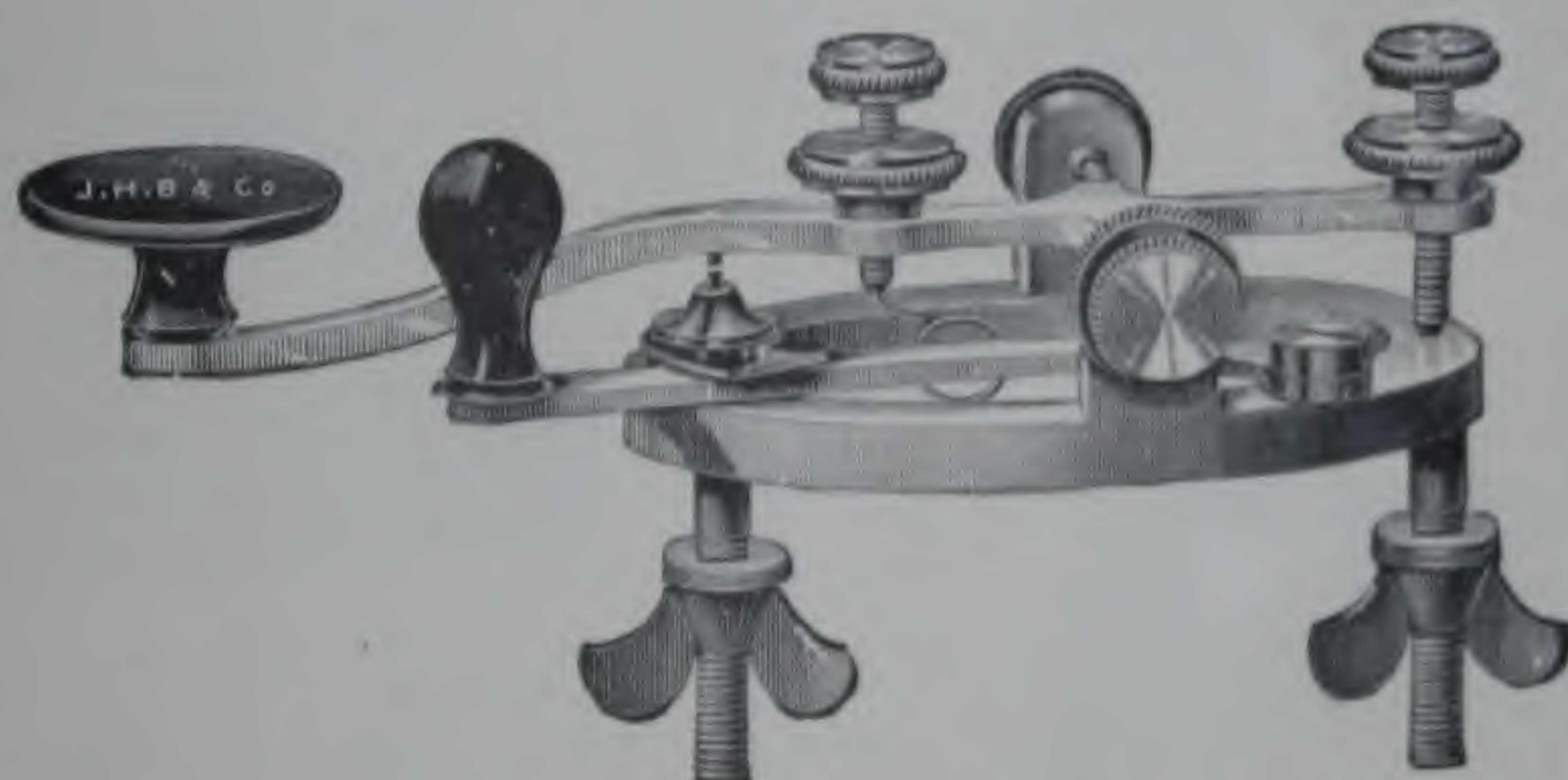
# Telegraph Instruments



Learner's Outfit

Without Battery

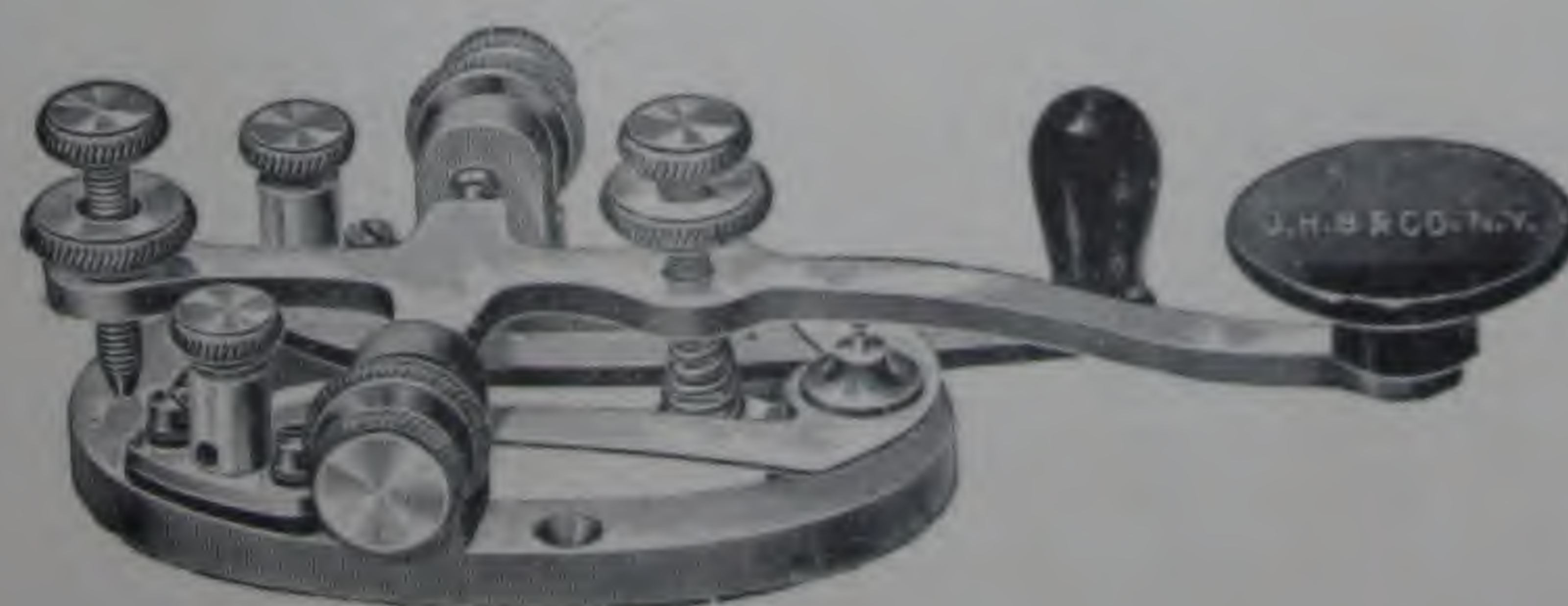
\$3.50



Standard Operating Key

Each

\$2.30



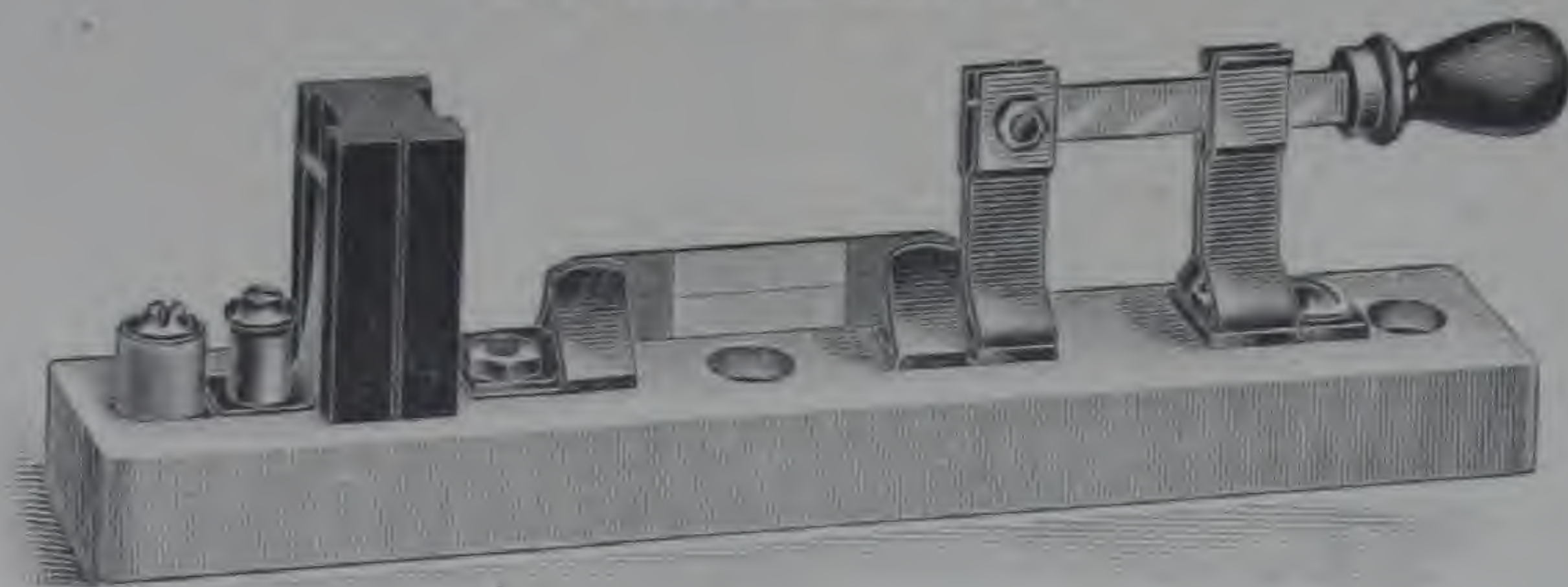
Legless Key

Each

\$2.50



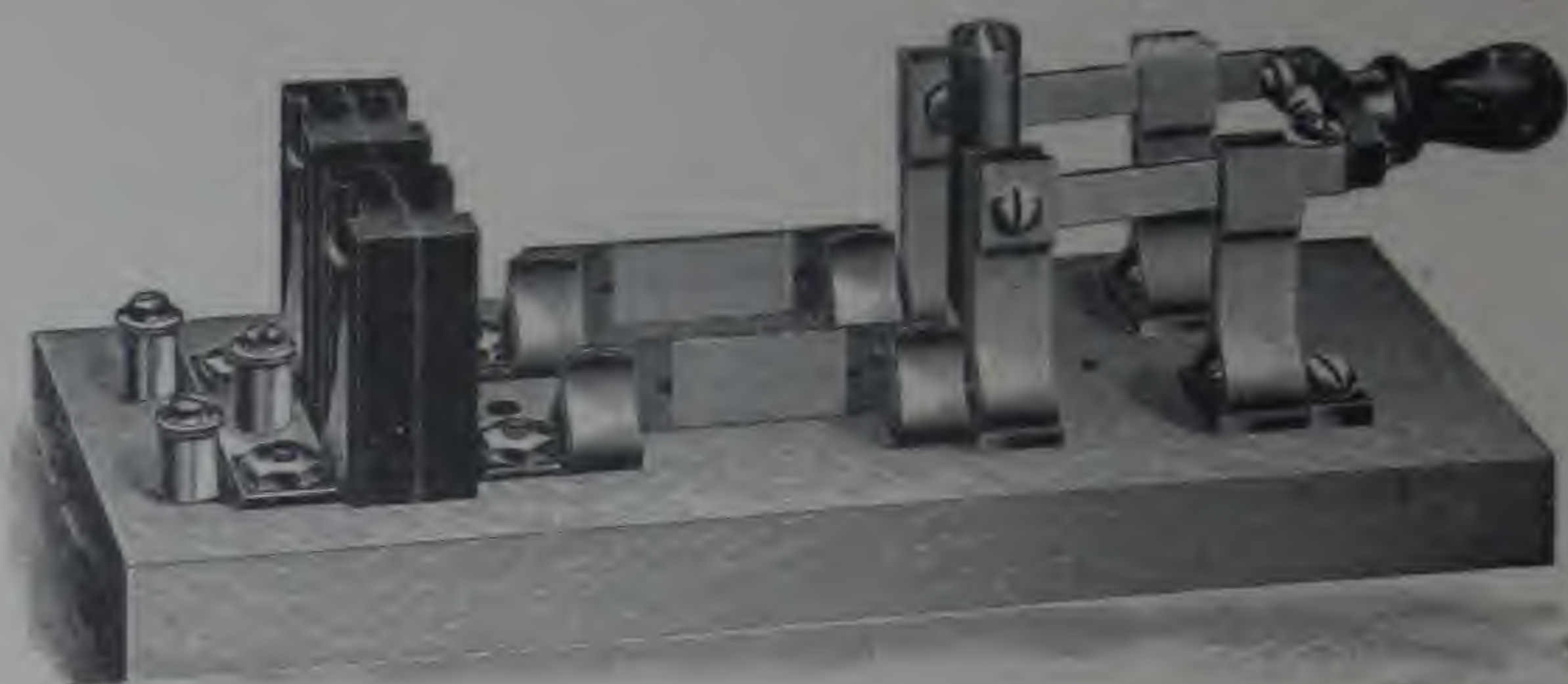
Combined Lightning Arrester, Fuse Block  
and Switch Cut-out



No. 501

Each . . . . . \$0.80

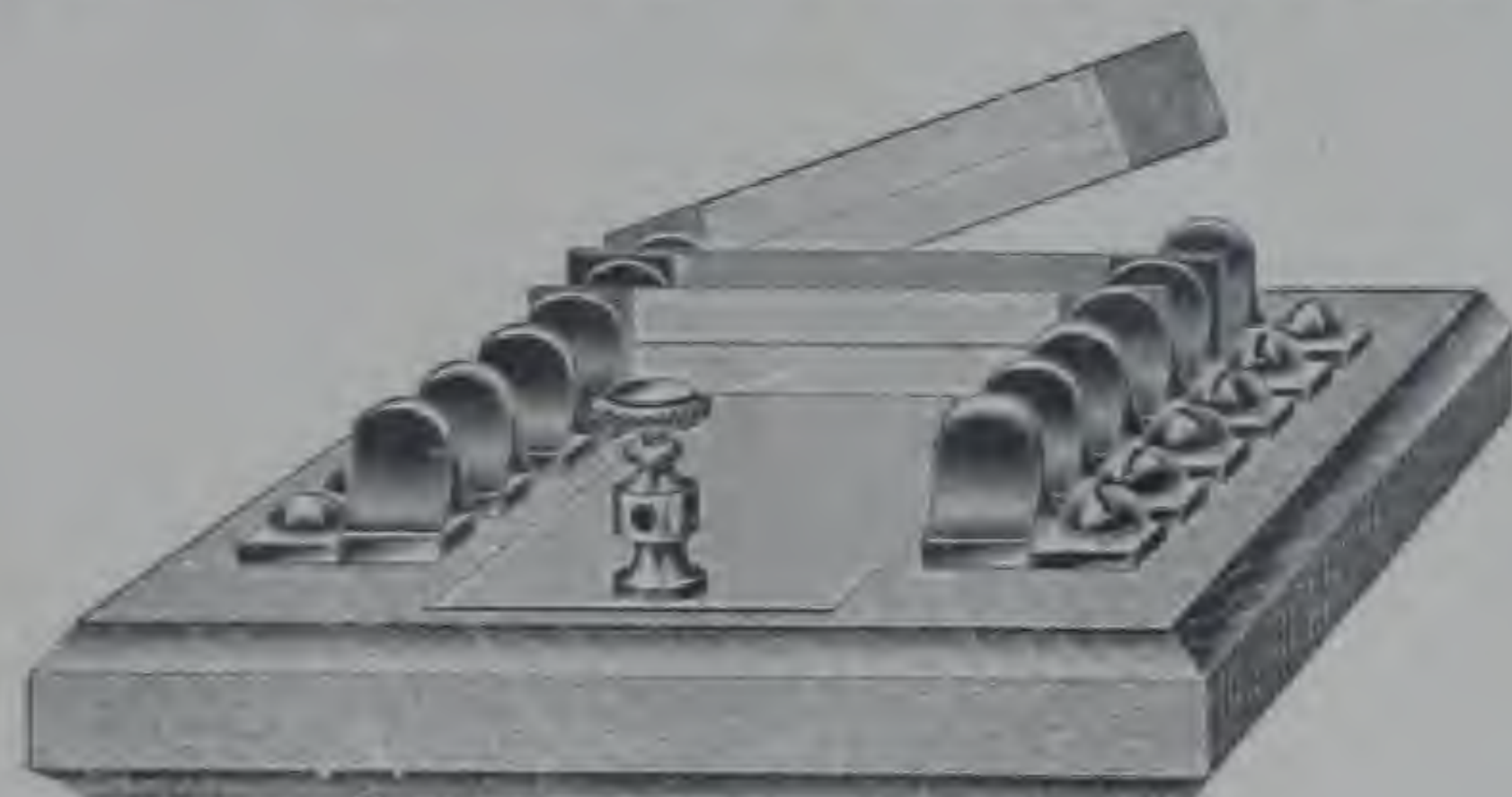
Combined Lightning Arrester, Fuse Block  
and Switch Cut-out



No. 500

Each . . . . . \$1.50

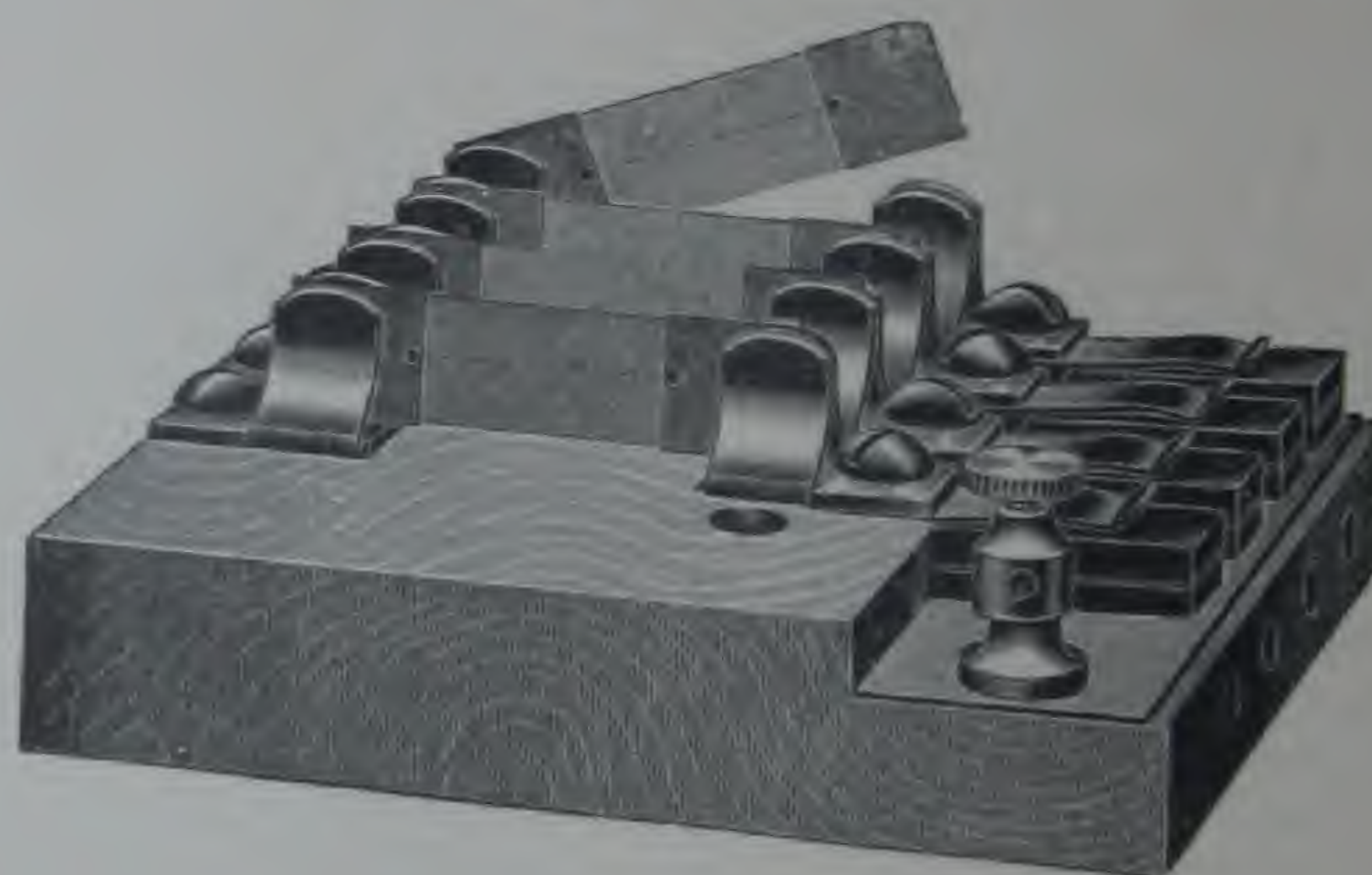
Multiple Lightning Arrester—Wood Base



No. 142

Per single line, each . . . . . \$0.24

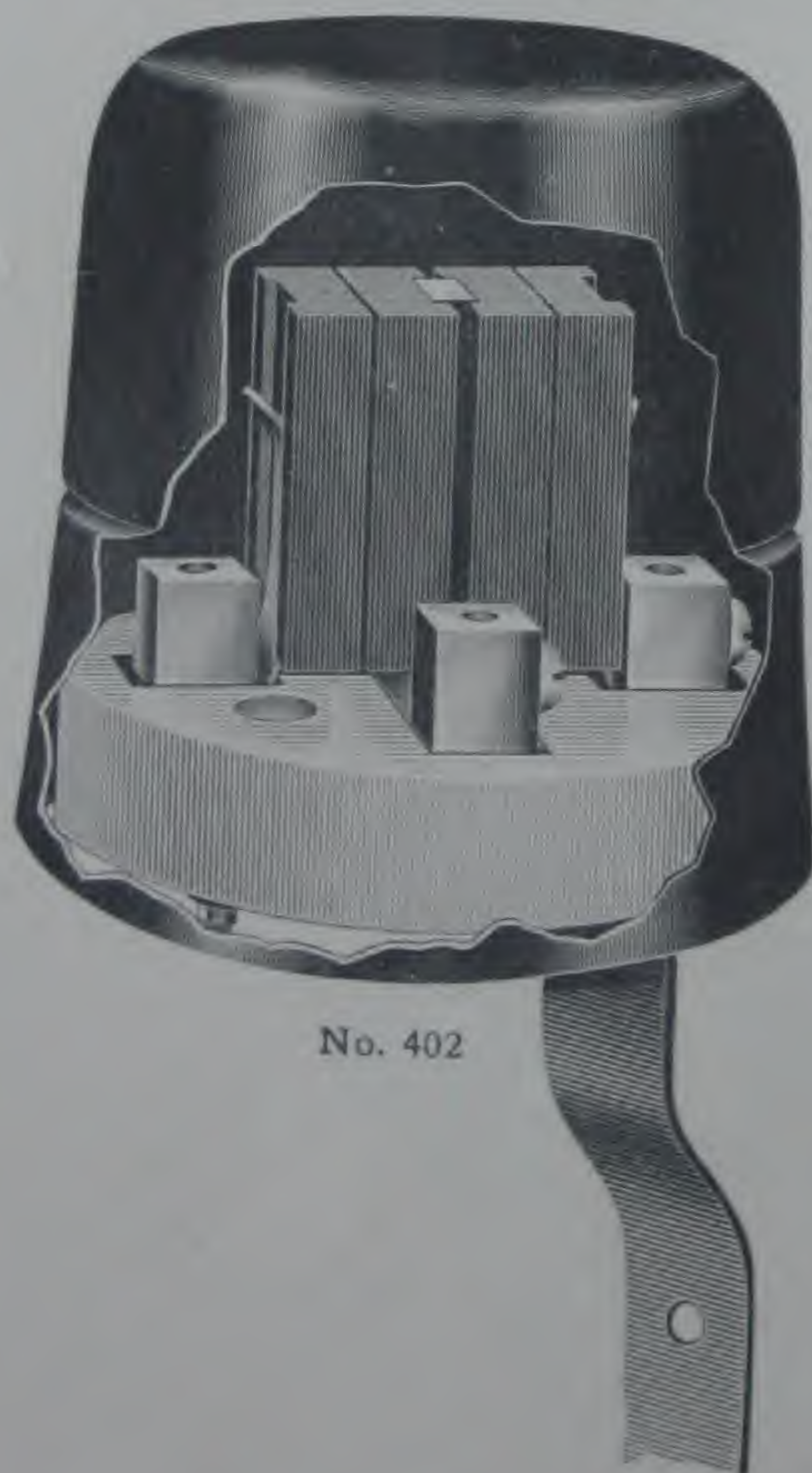
Multiple Fuse Block and Arrester—  
Wood Base



No. 179

Per single line, each . . . . . \$0.26

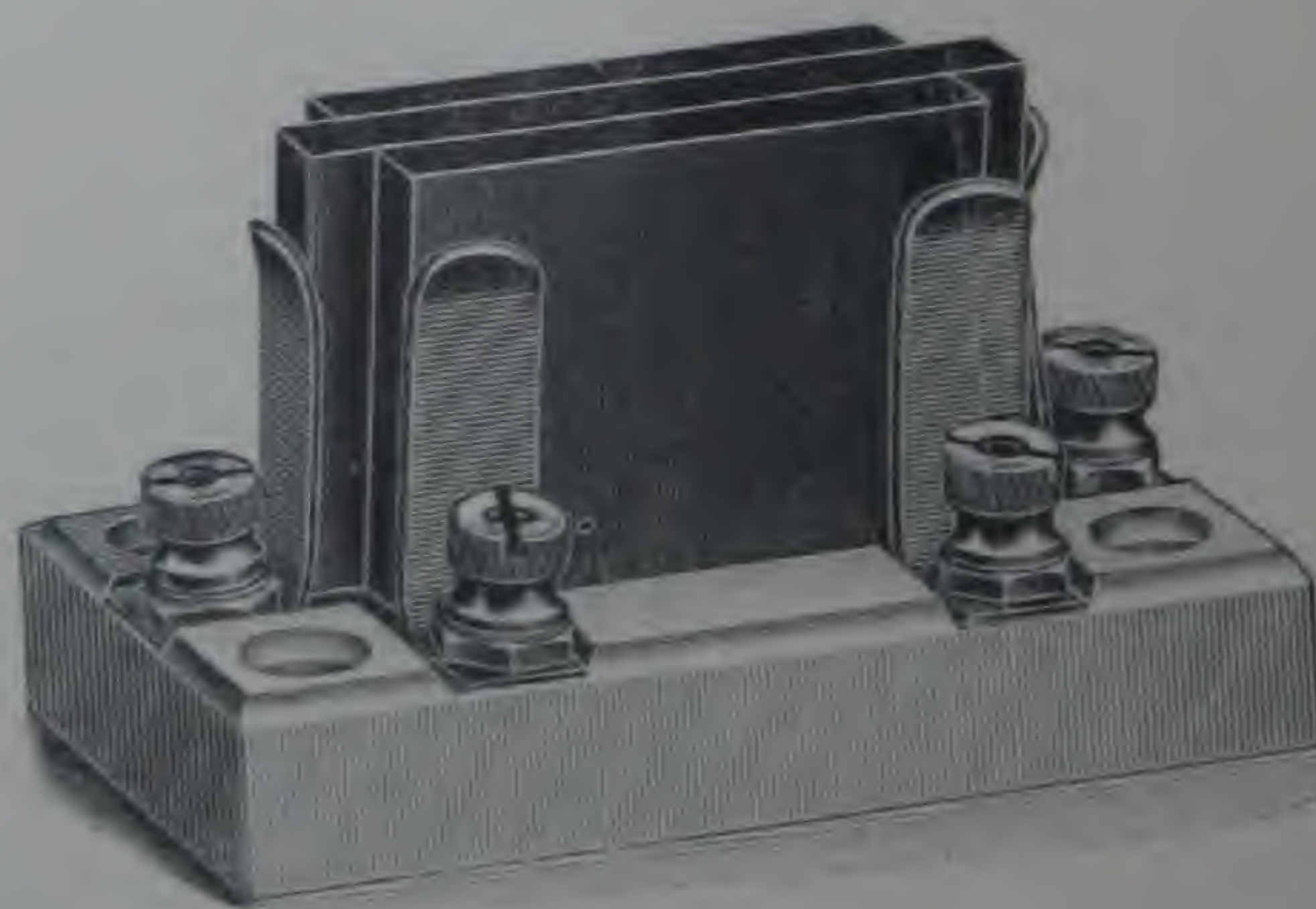
Weather-proof Protector



No. 402

Each . . . . . \$1.00

Protector



No. 401

Each . . . . . \$0.70

(For Fuses see page 64)



## Fuse Blocks and Lightning Arresters

Fuse Block



No. 18

W. U. Style, takes No. 19 Fuse . . . Each. \$0.18

Lightning Arrester



No. 42

W. U. Style, takes No. 8 Fuse . . . Each. \$0.24

Ground Plate Arrester



No. 51

W. U. Style, takes No. 24 Fuse . . . Each. \$0.30

Carbon Arrester



No. 57

W. U. Style, takes No. 8 Fuse . . . Each. \$0.40

Fuse Block



No. 20

Postal Style, takes No. 21 Fuse . . . Each. \$0.18

Carbon Arrester



No. 47

Postal Style, takes No. 11 Fuse . . . Each. \$0.24

Carbon Arrester



No. 89

Postal Style, takes No. 11 Fuse . . . Each. \$0.40

Ground Plate Arrester



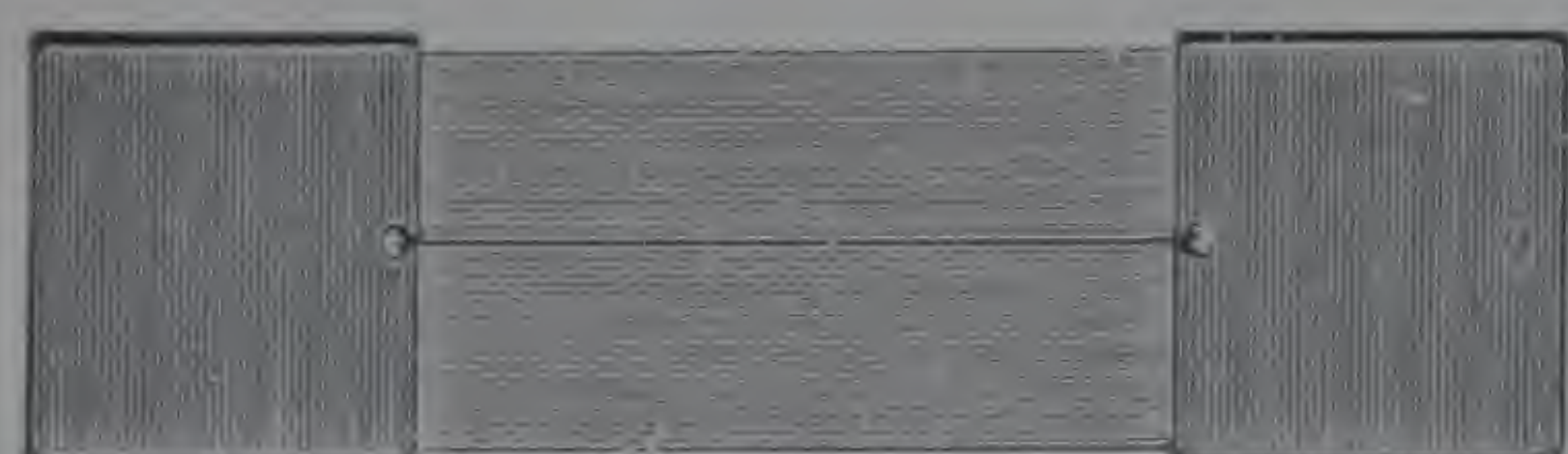
No. 54

Postal Style, takes No. 25 Fuse . . . Each. \$0.30

(For Fuses see page 64)



## Telephone Fuses



	Per 100.
No. 19. Copper Terminal Fuse .	\$2.50



No. 22.	Copper Terminal Fuse	Per 100.
		\$2.50



No. 8. Copper Terminal Fuse	Per 100.
	\$2.50



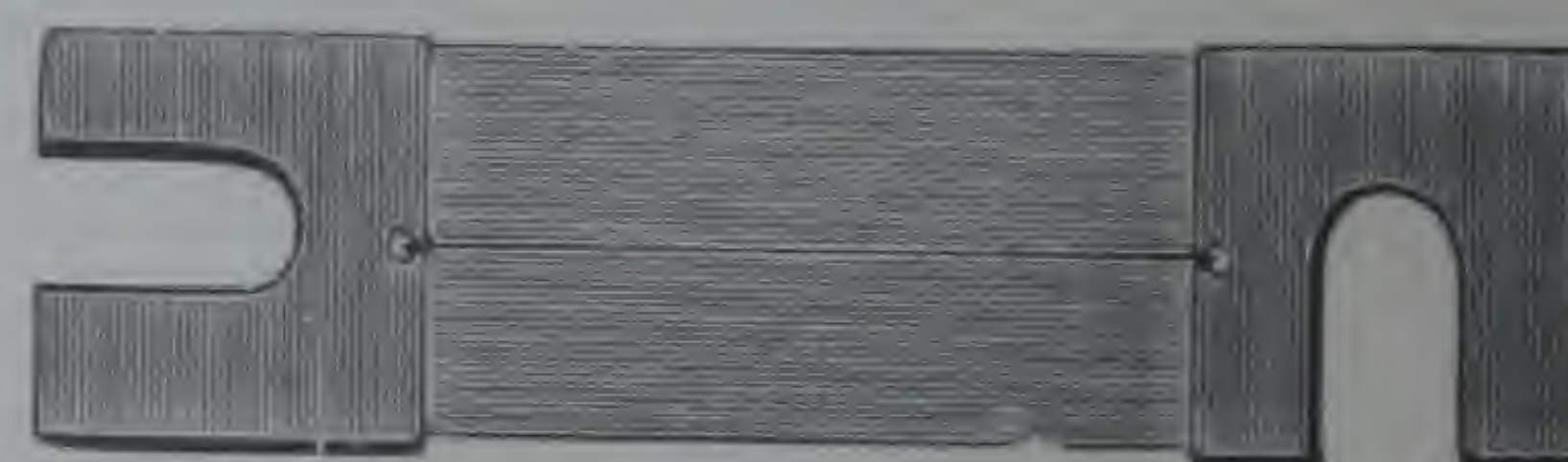
No. 137.	Copper Terminal Fuse	Per 100.
		\$2.50



No. 25.	Copper Terminal Fuse	Per 100.
		\$2.50



No. 11.	Copper Terminal Fuse	Per 100.
		\$2.50



No. 21.	Copper Terminal Fuse	Per 100.
		\$2.50

### Paper Insulators or Sleeves



Order by length and diameter

[illegible]



## Hard Sheet Fibre

In Red, Black and Gray colors

Sheets measure about 42 x 66 inches

The approximate weights of sheets are as follows:

Price, per lb. \$2.00	Thickness, 2 inches, about 256 lbs.
"	1 1/4 " 224 "
"	1 1/2 " 192 "
"	1 3/4 " 160 "
"	1 " 128 "
"	7/8 " 112 "
"	3/4 " 96 "
"	5/8 " 80 "
"	9/16 " 72 "
"	1/2 " 64 "
"	7/16 " 56 "
"	3/8 " 48 "
"	5/16 " 40 "
"	1/4 " 32 "
"	3/16 " 24 "
"	1/8 " 16 "
"	1/16 " 8 "
"	.72 " 4 "
"	.80 " 2 "

## Hard Vulcanized Fibre Rods

In Red, Gray and Black colors

Diameter,	3/2 inch	\$0.30 per foot
"	1/8 "	.30 "
"	1/8 "	.30 "
"	1/4 "	.30 "
"	5/16 "	.32 "
"	3/8 "	.36 "
"	1/2 "	.44 "
"	5/8 "	.52 "
"	3/4 "	.60 "
"	7/8 "	.70 "
"	1 "	.84 "
"	1 1/8 "	1.00 "
"	1 1/4 "	1.20 "
"	1 1/2 "	1.50 "
"	1 3/4 "	2.00 "
"	1 7/8 "	2.50 "
"	2 "	4.00 "
"	2 1/2 "	6.00 "

## Fibre Washers and Discs.

Thickness	Per 100 1/8"	Per 100 3/16"	Per 100 1/4"	Per 100 5/16"	Per 100 3/8"	Per 100 1/2"
Outside Diam., 1/2	\$ 0.60	\$ 0.80	\$ 1.00	\$ 1.20	\$ 1.50	\$ 2.40
" 5/8	.68	.90	1.10	1.40	1.80	2.80
" 3/4	.80	1.04	1.26	1.70	2.20	3.20
" 7/8	.94	1.22	1.48	2.04	2.70	4.00
" 1	1.10	1.44	1.76	2.48	3.30	4.80
" 1 1/8	2.28	1.70	2.10	3.00	4.00	6.00
" 1 1/4	1.48	2.00	2.50	3.60	4.80	7.20
" 1 3/8	1.70	2.34	2.96	4.28	5.70	8.40
" 1 1/2	1.94	2.70	3.50	5.00	6.70	10.00
" 1 3/4	2.50	3.60	4.60	6.80	8.80	13.60
" 2	3.20	4.60	6.00	9.00	12.00	18.00
" 2 1/4	4.00	5.80	7.40	11.00	14.40	22.00
" 2 1/2	5.00	7.20	9.30	13.60	18.00	27.20
" 2 3/4	6.00	9.60	11.00	16.20	21.20	32.40
" 3	7.00	10.20	13.40	20.00	26.20	40.00
" 3 1/4	8.00	11.80	15.60	22.80	30.00	44.00
" 3 1/2	9.40	13.80	18.40	27.20	36.00	52.00
" 3 3/4	10.60	15.60	20.40	30.00	40.00	60.00
" 4	12.00	17.40	23.00	34.60	46.00	68.00
" 4 1/4	13.40	19.60	25.60	37.80	50.00	74.00
" 4 1/2	15.00	22.00	29.00	43.40	58.00	84.00
" 4 3/4	16.60	24.20	32.00	48.00	64.00	96.00
" 5	18.60	27.40	36.00	54.00	71.60	108.00
" 5 1/4	21.40	32.00	42.00	62.00	82.00	124.00
" 5 1/2	24.80	37.40	50.00	74.00	98.40	148.00
" 5 3/4	28.40	42.20	56.00	83.00	110.00	164.00
" 6	32.40	48.20	63.80	95.00	126.60	188.00
" 7	39.00	58.00	77.00	115.00	153.00	228.00
" 8	50.00	74.40	99.00	148.00	197.00	296.00
" 9	62.40	92.00	122.00	182.00	243.00	364.00
" 10	73.00	109.00	145.00	217.00	289.00	432.00
" 11	97.40	145.40	190.00	289.00	385.40	576.00
" 12	116.80	174.40	232.00	347.20	462.40	692.00

## Hard Rolled Tubing

In Red, Gray and Black colors

Thickness of Wall	Per foot 1/8"	Per foot 3/16"	Per foot 1/4"	Per foot 5/16"	Per foot 3/8"	Per foot 1/2"
Inside Diameter, 1/8	.40	.60	.80	—	—	—
" 1/8	.40	.60	.80	—	—	—
" 1/4	.20	.28	.36	.44	.52	—
" 1/4	.20	.30	.38	.48	.56	—
" 3/8	.22	.32	.42	.52	.62	—
" 3/8	.22	.34	.44	.56	.66	—
" 1/2	.24	.36	.48	.60	.72	.96
" 1/2	.26	.40	.52	.64	.78	1.04
" 3/4	.28	.42	.56	.70	.84	1.12
" 3/4	.30	.46	.60	.74	.90	1.20
" 1	.32	.48	.64	.80	.96	1.28
" 1	.34	.52	.68	.84	1.02	1.36
" 1 1/8	.36	.54	.72	.90	1.08	1.44
" 1 1/8	.38	.58	.76	.94	1.14	1.52
" 1 1/4	.40	.60	.80	1.00	1.20	1.60
" 1 1/4	.44	.66	.88	1.10	1.32	1.76
" 1 1/4	.48	.72	.96	1.20	1.44	1.92
" 1 3/8	.52	.78	1.04	1.30	1.56	2.08
" 1 3/8	.56	.84	1.12	1.40	1.68	2.24
" 1 3/8	.60	.90	1.20	1.50	1.80	2.40
" 1 1/2	.64	.96	1.28	1.60	1.92	2.56
" 1 1/2	.68	1.02	1.36	1.70	2.04	2.72
" 2	.72	1.08	1.44	1.80	2.16	2.88



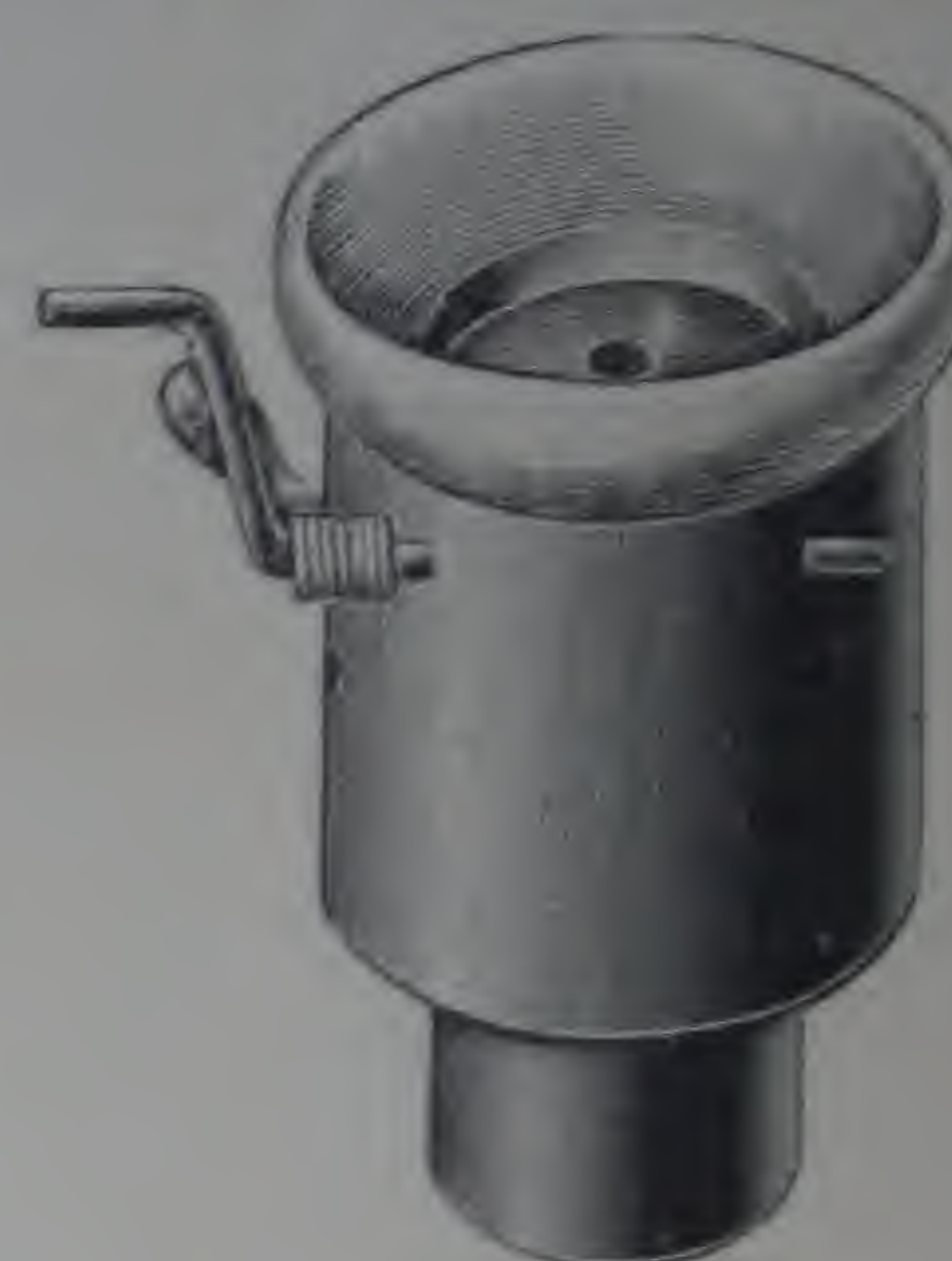
## Speaking Tube Supplies

Nickel Whistles



Each . . . . .	\$0.36
Per dozen . . . . .	3.20

Whistles with Porcelain Mouth Pieces



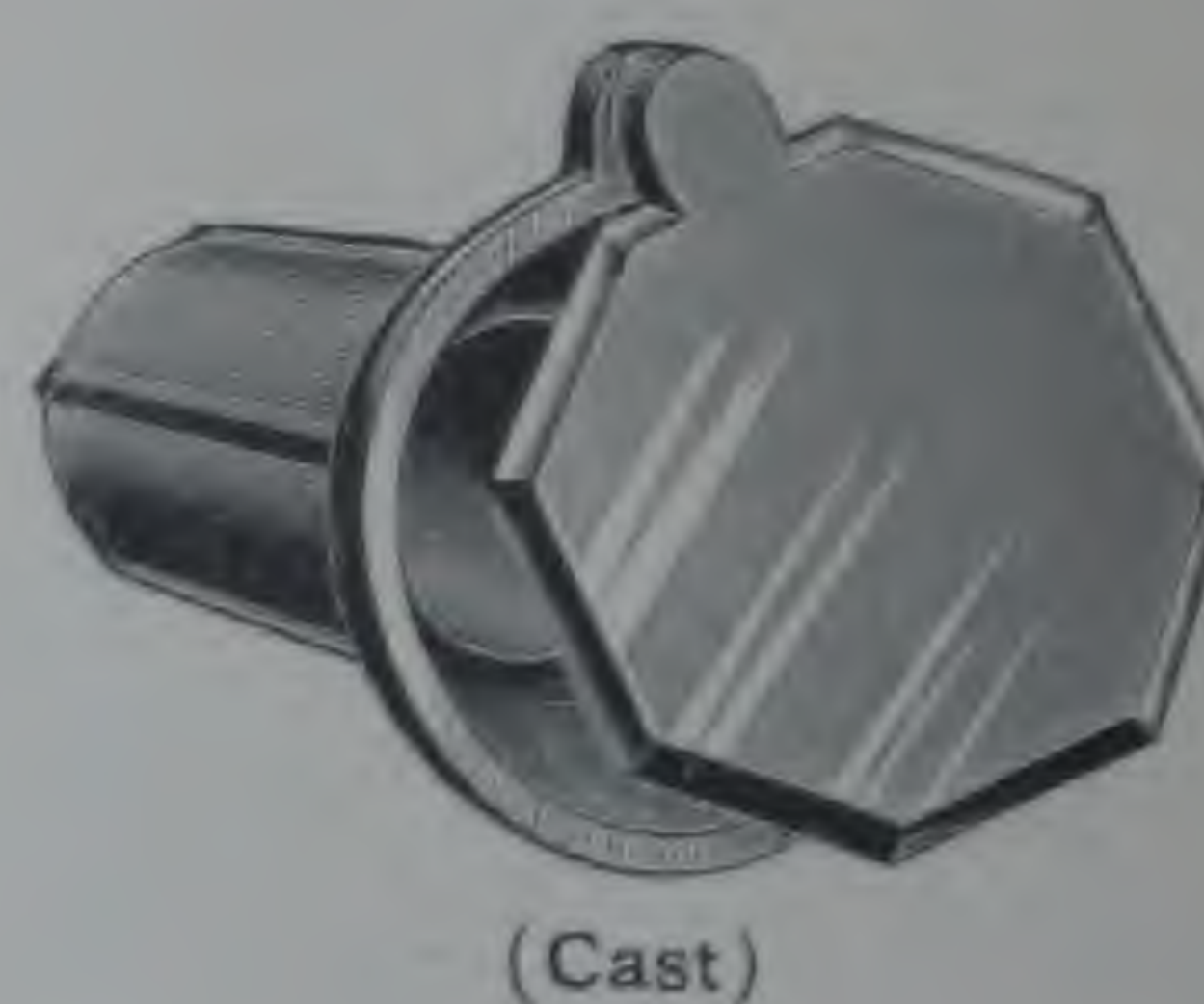
Each . . . . .	\$0.36
Per dozen . . . . .	3.20

Nickel Mouth Pieces



Each . . . . .	\$0.20
----------------	--------

Covered Mouth Pieces



Each . . . . .	\$1.00
----------------	--------

Mouth Piece



No. 25182

Each . . . . .	\$1.00
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Flexible Speaking Tube Holders



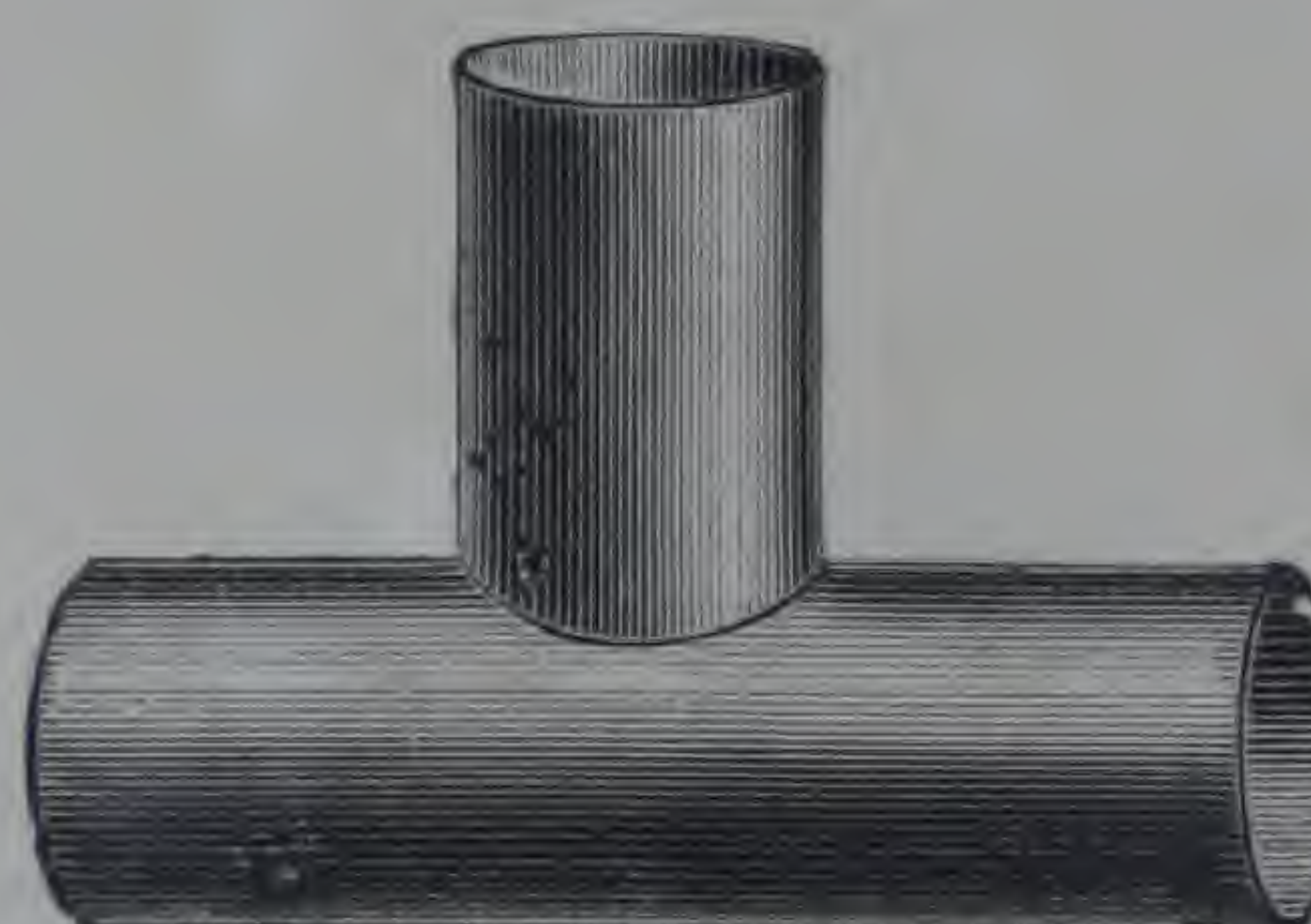
Each . . . . .	\$0.20
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### Tin Speaking Tube

[illegible]

## T. Elbows



1 inch, each . . . . .	\$0.04
------------------------	--------

1 inch, each . . . . .	\$0.10
------------------------	--------

## Square Elbows



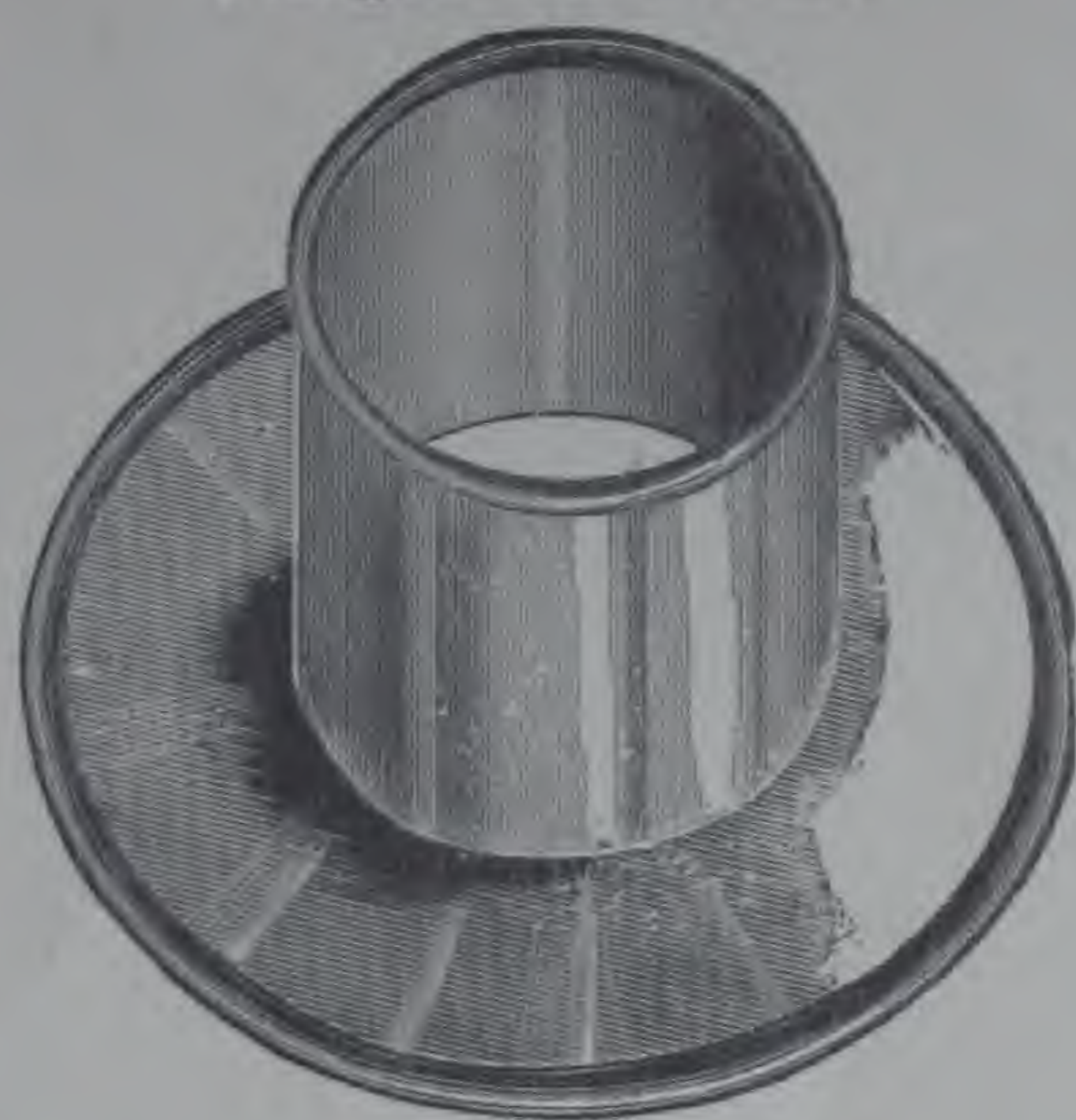
1 inch, each . . . . .	\$0.06
------------------------	--------

1 inch, each . . . . .	\$0.04
------------------------	--------



## Speaking Tube Supplies

Flanged Wall Collar



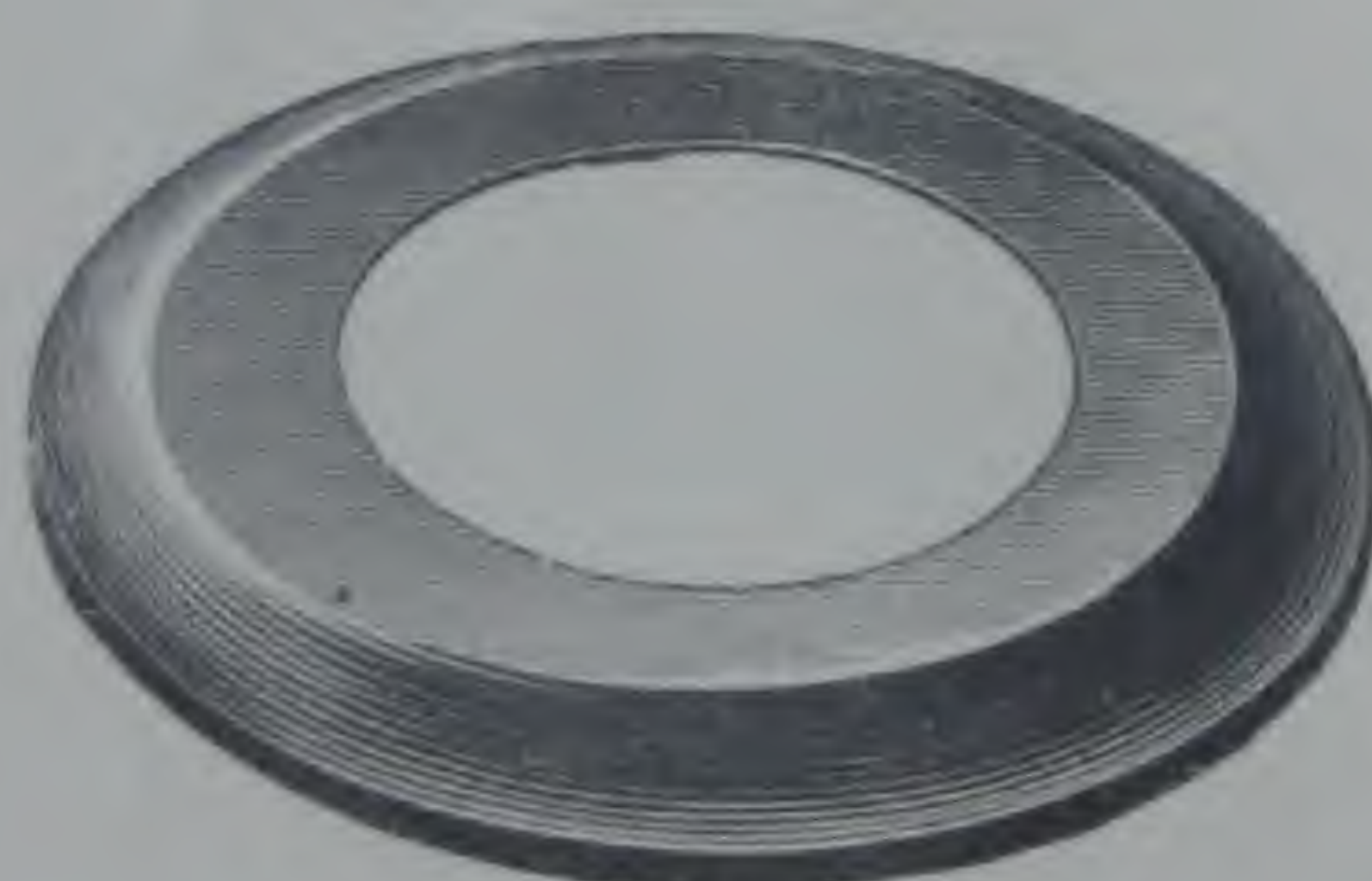
Each . . . . . \$0.30

Collars



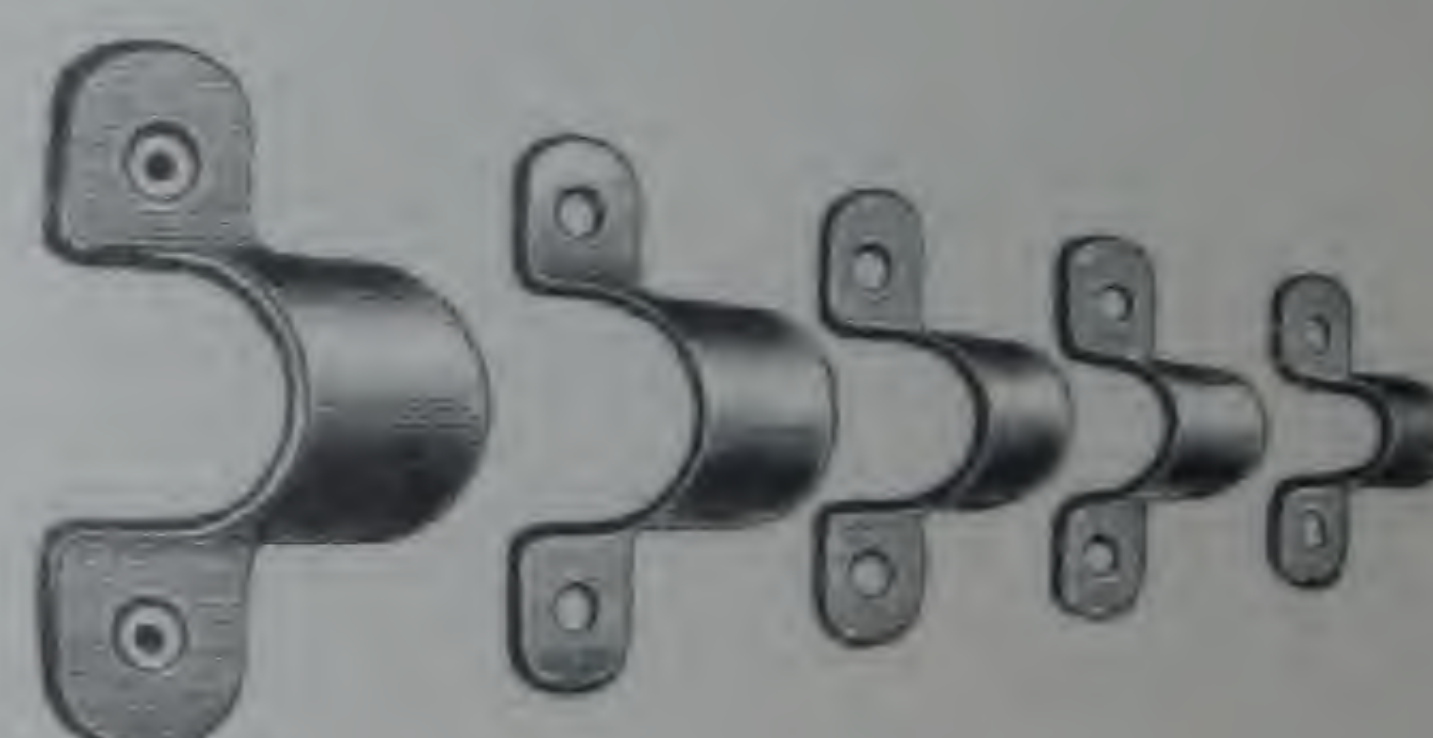
Each . . . . . \$0.16

Rosettes



Per dozen . . . . . \$0.70

Galvanized Straps



Per lb. . . . . \$0.24

Handy Connectors



Per dozen . . . . . \$0.24

Flexible Mohair Speaking Tube



(Gum Lined)

Per foot . . . . . \$0.40



## Blasting Machines



### "Pull-Up" Blasting Machine

No. 3, will fire 20 to 30 holes	\$25.00
" 4, " " 40 " 50 "	50.00
" 5, " " 75 " 100 "	75.00

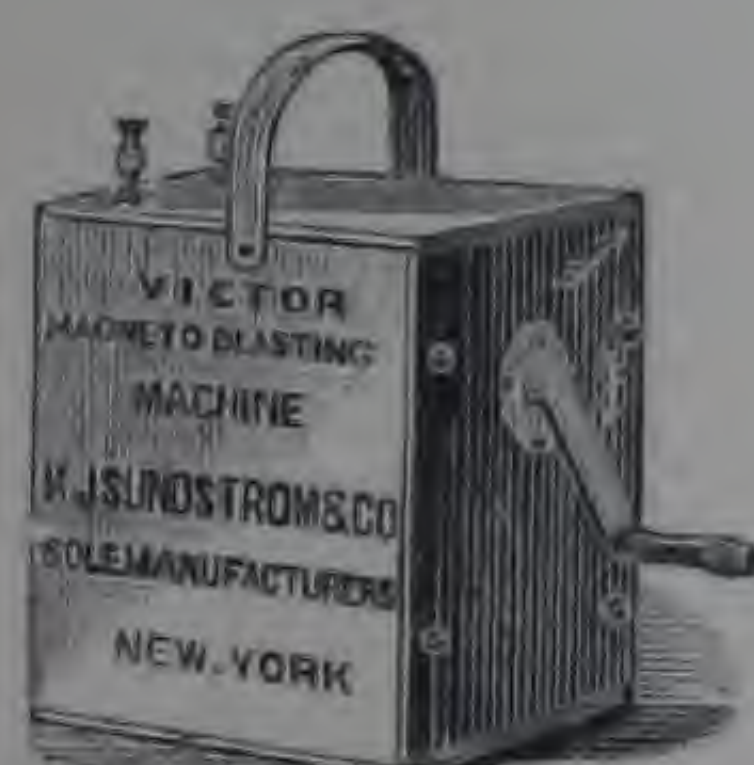
Especially adapted for submarine blasting, large railroad quarrying and mining work.



### United States Standard Blasting Machine

No. 3, will fire 1 to 20 holes	\$25.00
" 4, " " 40 " 50 "	50.00

Adapted for same work as the "Pull-up" machine.



### Victor Blasting Machine

No. 1, will fire 5 to 8 holes	\$15.00
-------------------------------	---------

Weighs only 15 pounds, adapted for prospecting, stump blasting, well sinking, etc.

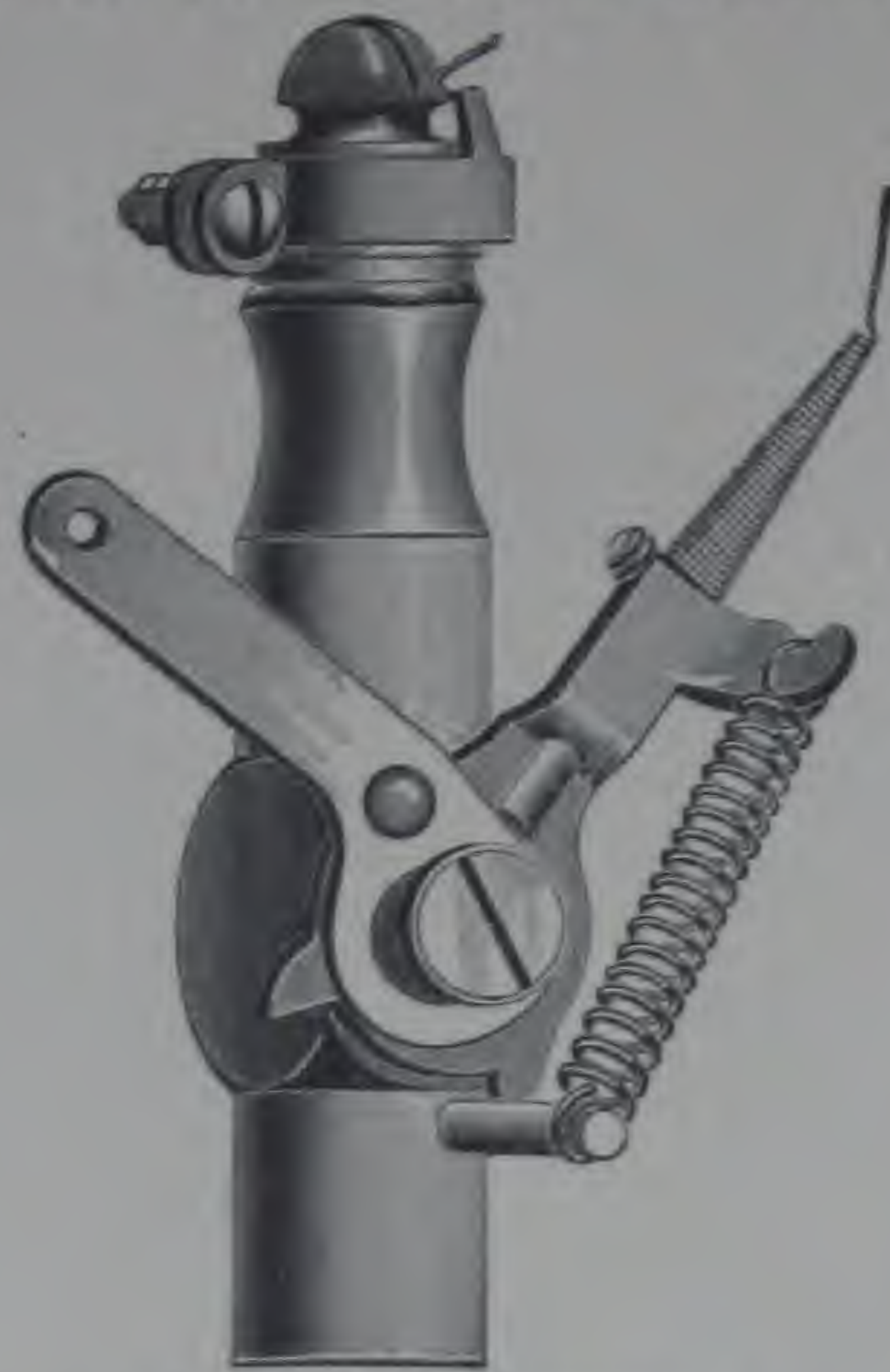
### Victor Electric Platinum Fuses



		Single Strength. Ordinary Quality. Equal to Quintuple Force. Per 100.	Double Strength. Extra Quality. Equal to Double Quintuple Force. Per 100.
4 foot wires		\$3.00	\$3.75
6 " "		3.54	4.29
8 " "		4.08	4.83
10 " "		4.62	5.37
12 " "		5.16	5.91
14 " "		5.70	6.45
16 " "		6.24	6.99
18 " "		6.78	7.53
20 " "		7.32	8.07
22 " "		8.32	9.07
24 " "		9.32	10.07
26 " "		10.32	11.07
28 " "		11.32	12.07
30 " "		12.32	13.07



No. 10 Pendant Burner



Non-short Circuiting

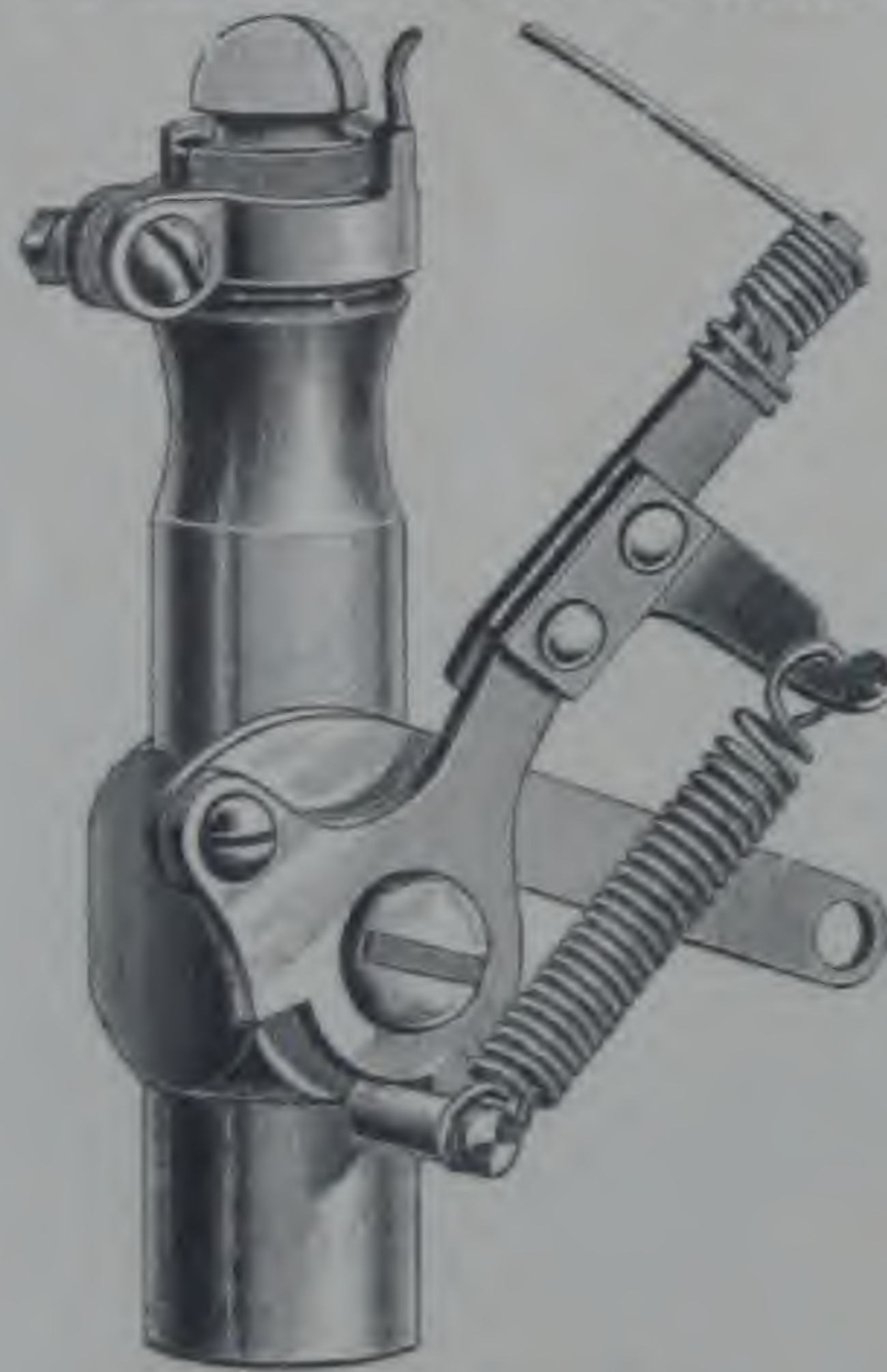
Less than dozen	\$1.00
Dozen lots and over	.90

No. 17 Pendant Burner



Less than dozen	\$1.00
Dozen lots and over	.90

Victor Pendant Burner



Non-short Circuiting

Less than dozen	\$1.00
Dozen lots and over	.90

No. 3 Ratchet Burner



Each, without chain	\$1.10
---------------------	--------

Jypco Pendant Burner



Non-short Circuiting

Less than dozen	\$1.00
Dozen lots and over	.90

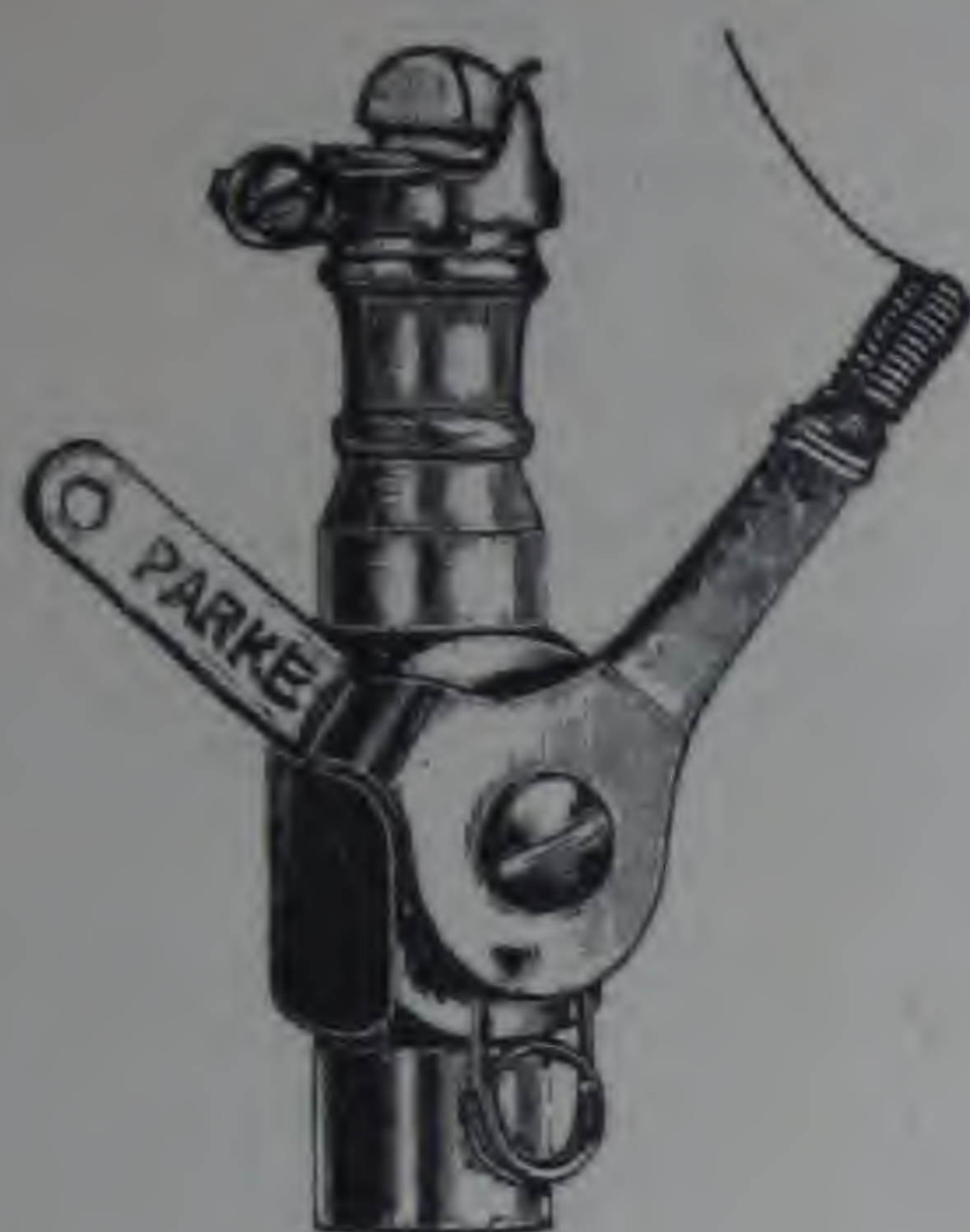
No. 2 Pendant Burner



Less than dozen	\$1.00
Dozen lots and over	.90

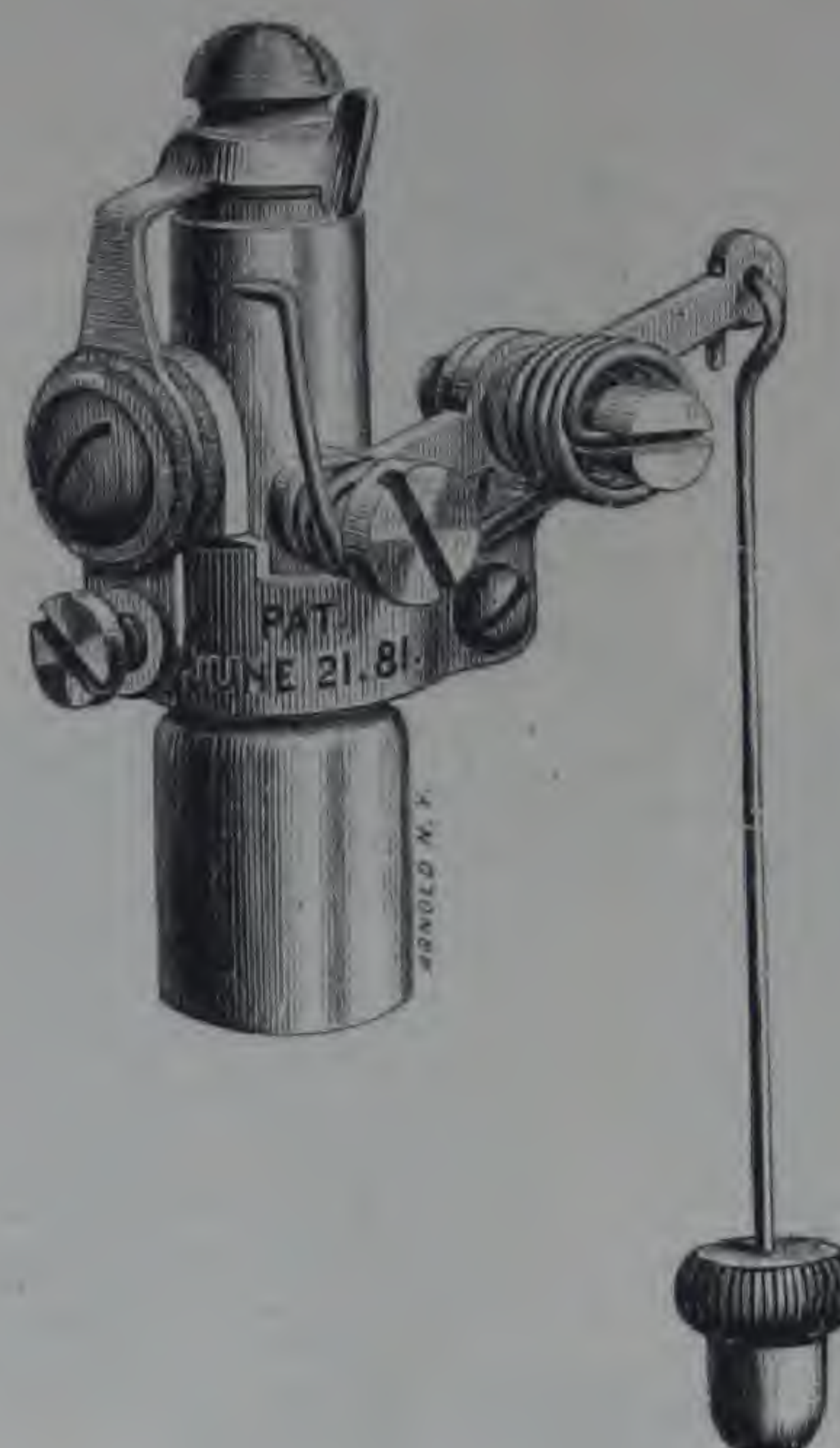


### Parke Pendant Burner



Less than dozen . . . . .	\$1.00
Dozen lots and over . . . . .	.90

### Plain Burner (Without Valve)



Each . . . . .	\$0.40
----------------	--------

### Style A Advance

Welsbach Attachment—For No. 34 Burner



Each . . . . .	\$2.00
----------------	--------

### Style C Advance

Welsbach Attachment—For No. 33 Burner

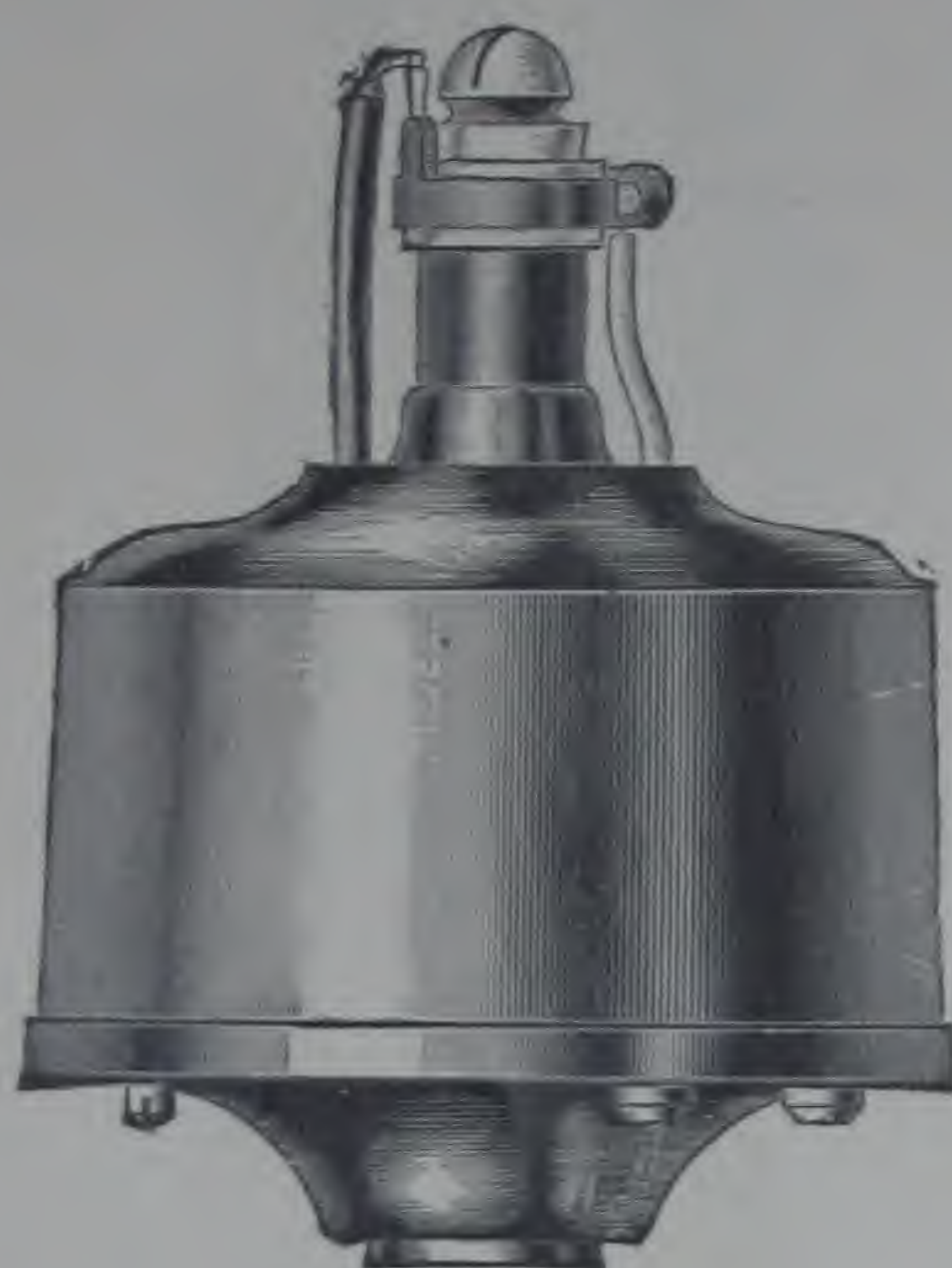


Each . . . . .	\$2.00
----------------	--------



## Automatic Burners

Boston Automatic Burner



Less than 6 . . . . .	\$5.50
6 to 12 . . . . .	5.00
12 and over, special price.	

Holtzer Automatic Burner



Less than 6 . . . . .	\$5.50
6 to 12 . . . . .	5.00
12 and over, special price.	

Advance Automatic Burner



Less than 6 . . . . .	\$5.50
6 to 12 . . . . .	5.00
12 and over, special price.	

Philadelphia Automatic Burner



Less than 6 . . . . .	\$5.50
6 to 12 . . . . .	5.00
12 and over, special price.	



Advance Exposed Automatic  
Candle Burner



Each . . . . . \$8.50

Advance Automatic Welsbach  
Attachment



Each . . . . . \$8.50

Advanced Concealed Automatic  
Candle Burner



Each . . . . . \$8.50

Advance Stem Acetylene Burner



Style A

Each . . . . . \$2.50

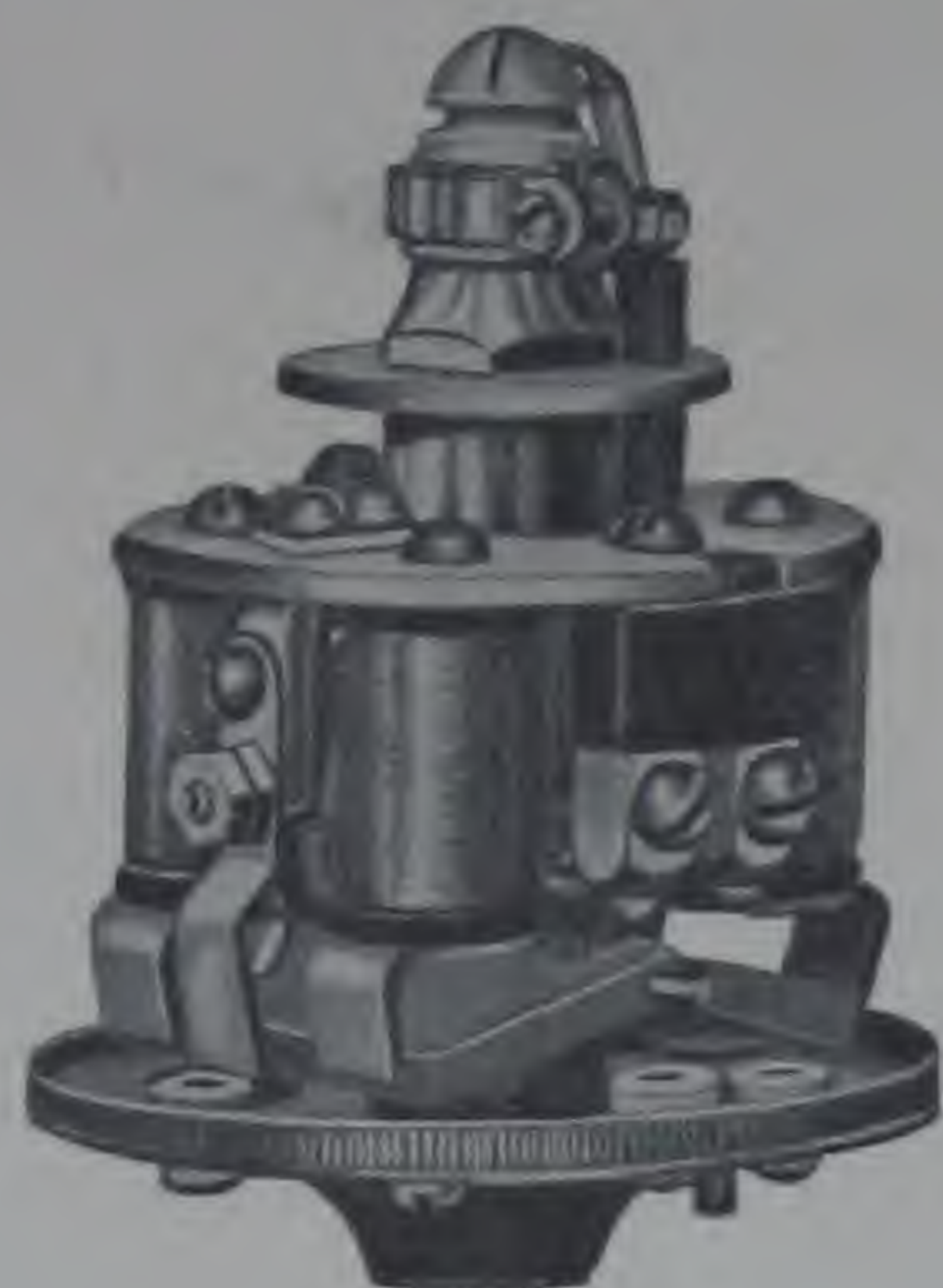
Advance Automatic Acetylene Burner



Without Acetylene Tip . . . . .	\$7.00
With Acetylene Tip . . . . .	8.00



Advance Safeguard Automatic Burner



Each . . . . . \$7.00

Safeguard Automatic Key



Flash light indicates that the gas way is closed.

1 Light . . . . .	\$1.00
2 " . . . . .	1.30

Advance Stem Burner



Each . . . . . \$1.70

Advance Stem Candle Burner



Each . . . . . \$3.50



## Gas Lighting Material

## Standard Spark Coils



8 inch . . . . .	\$1.50
10 " . . . . .	2.20
12 " . . . . .	3.00

## Edison Type Gas Engine Coil



Each . . . . .	\$4.50
----------------	--------

Spark Coils of other type listed on page 77 and 119.

## Bead Chain, Acorns, etc.



Bead Chain, only, per yard . . . . .	\$0.26
Acorns, per dozen . . . . .	.50
Cups and Pins, per dozen . . . . .	.30
6 inch Chains, complete, each . . . . .	.16
8 " " " " . . . . .	.18

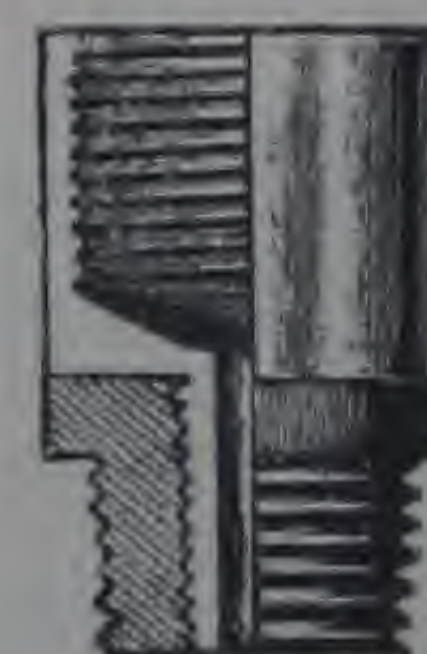
## Gas Fixture Wire



No. 22, per lb. . . . .	\$1.80
" 24, " " . . . . .	2.00

Spools contain 1 lb.

## Burner Insulating Bushing



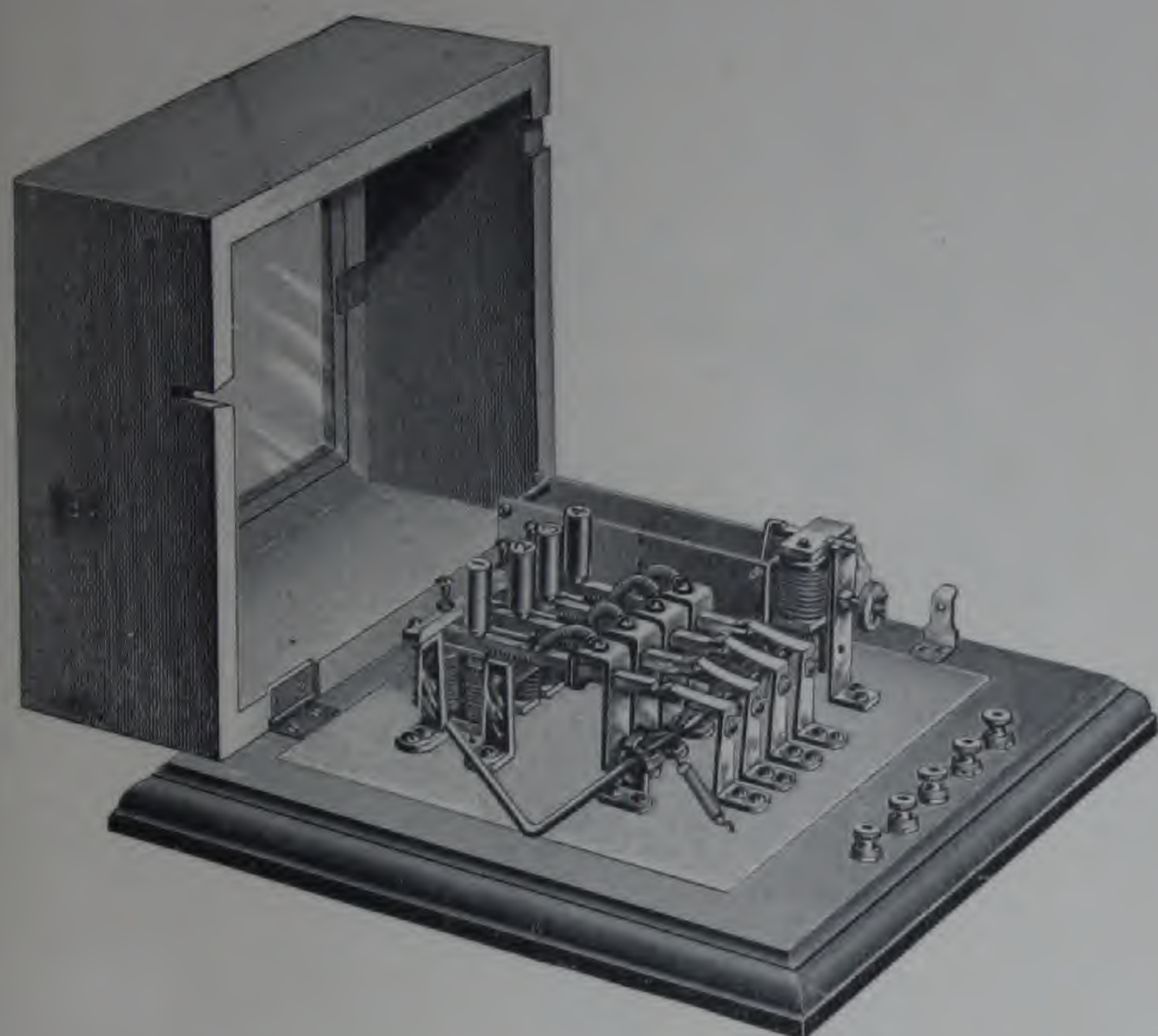
Each . . . . .	\$0.14
Per dozen . . . . .	1.44





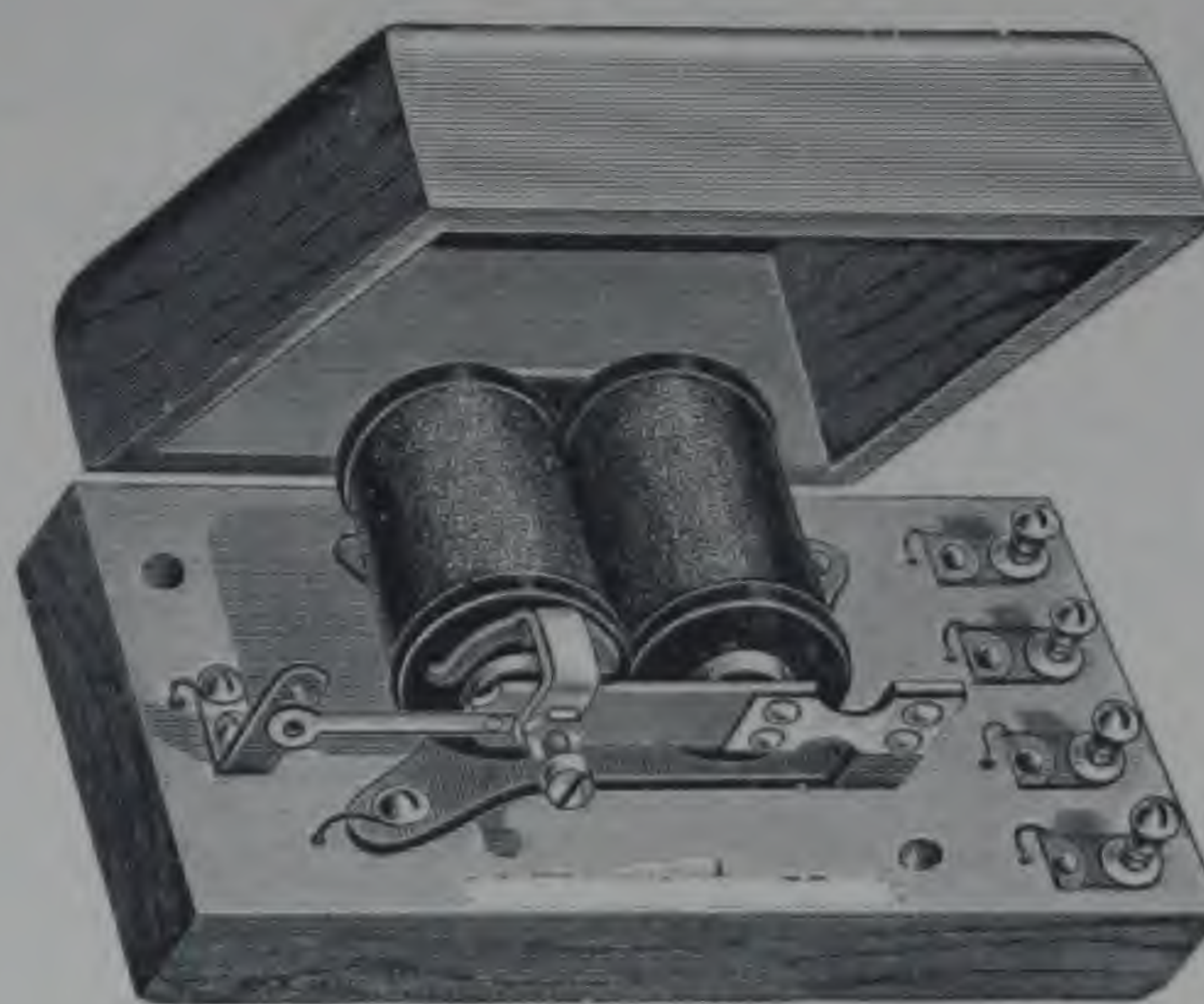


Automatic Sectional Cut-out



1 Section	.	.	.	.	.	\$6.00
2 "	.	.	.	.	.	10.00
3 "	.	.	.	.	.	12.00
4 "	.	.	.	.	.	15.00
6 "	.	.	.	.	.	20.00
8 "	.	.	.	.	.	26.00
10 "	.	.	.	.	.	32.00
12 "	.	.	.	.	.	38.00

Signal Relay



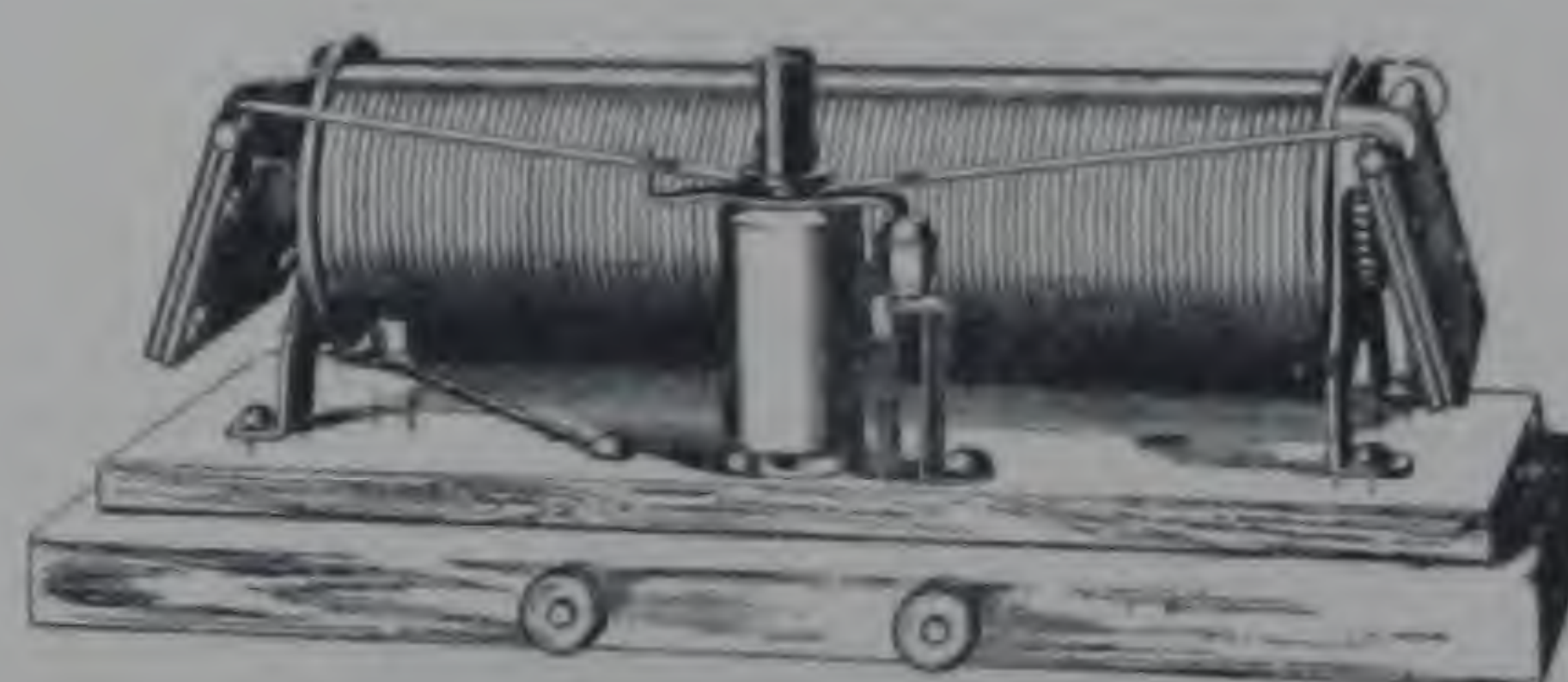
For Bell Circuits (20 ohms)	.	.	.	\$1.50
" Gas Lighting Circuits (40 ohms)	.	.	.	1.60

Glycerine Cut-out



Each . . . . . \$9.00

Circuit Breaking Spark Coil



Each . . . . . \$7.00

Spark Coils also on pages 75 and 119.

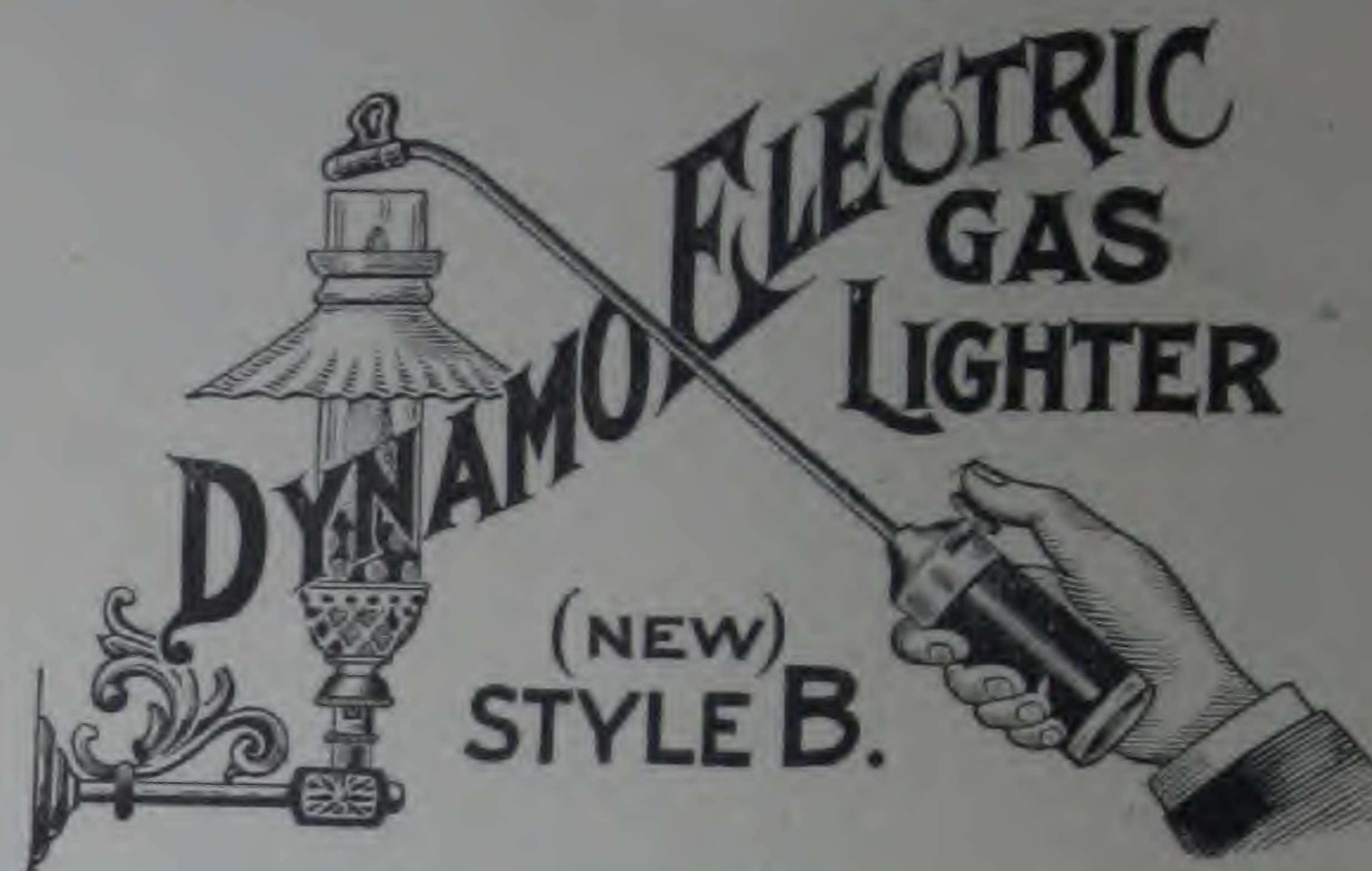


## Frictional Gas Lighting Apparatus



Style A, Straight Stem

24 inches	\$10.00
36 "	11.00



Style B, for Welsbachs

24 inches	\$11.00
36 "	12.00

## Frictional Gas Lighting Machine



8 inches, less than 35 lights	\$76.00
12 " 35 to 75 lights	100.00

Sold at purchaser's risk.

## Automatic Burner



No. 9, each	\$8.00
-------------	--------

## Rhumkorff Induction Coils



1/2 inch Spark	\$20.00
3/4 " "	26.00
1 " "	34.00
1 1/4 " "	42.00
1 1/2 " "	52.00
2 " "	70.00
3 " "	100.00

## Series Porcelain Tip Burner



No. 23, each	\$0.60
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## Frictional Gas Lighting Apparatus

### Candle Burners



Different styles, including fittings.  
Prices on application.

### Series Porcelain Burner



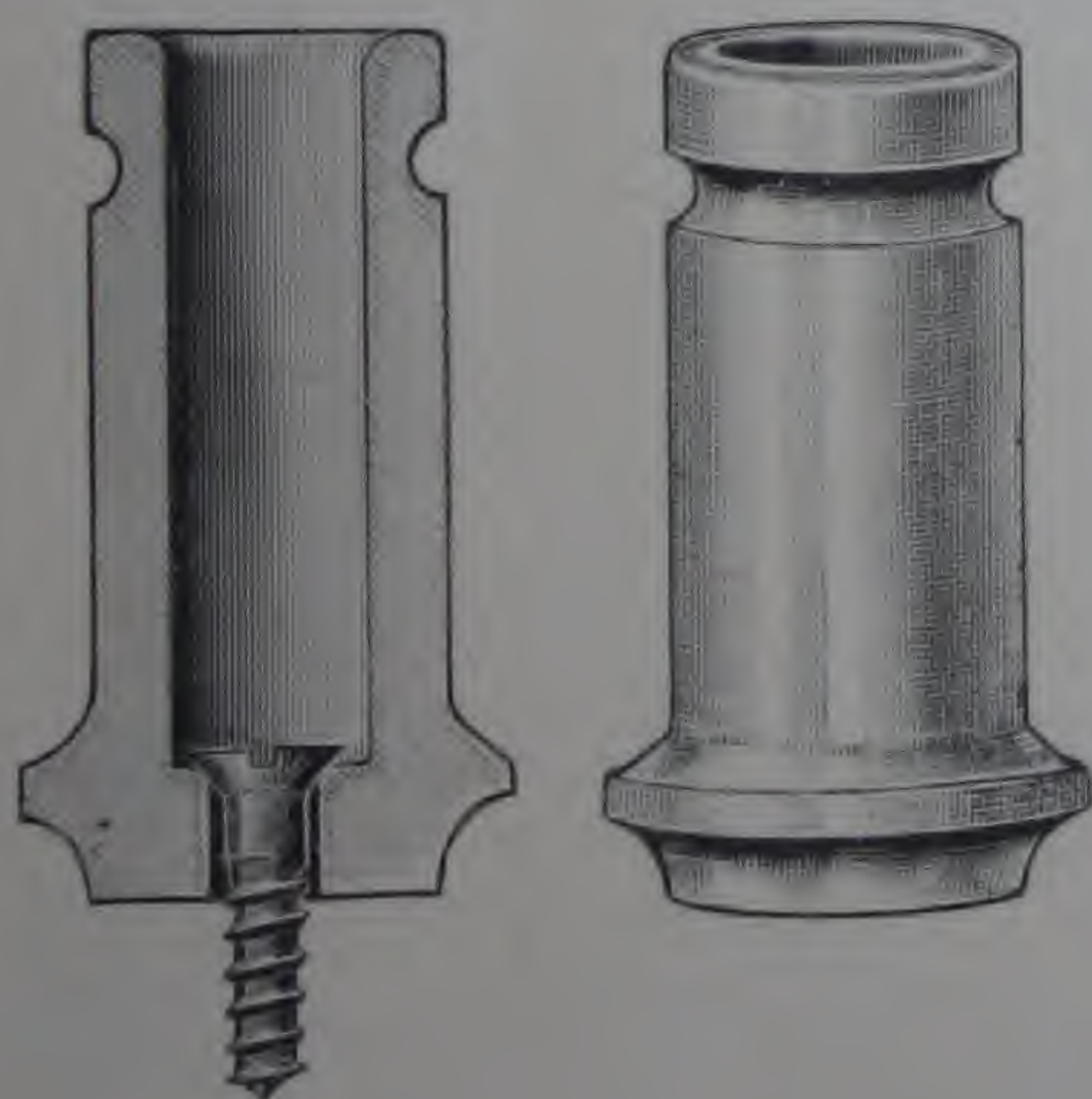
No. 18, each . . . . . \$0.80

### Slide Switches for Jump Spark Apparatus



Points	5	6	7	8	9	10
Price	\$8.30	\$9.50	\$10.75	\$12.00	\$13.00	\$14.00

### Long Porcelain Insulator



Per 100 . . . . . \$12.50

### Rotary Switches for Jump Spark Apparatus



Points	2	3	4	5
Price	\$2.25	\$2.75	\$3.80	\$4.50



## Battery Lamps



No. 32



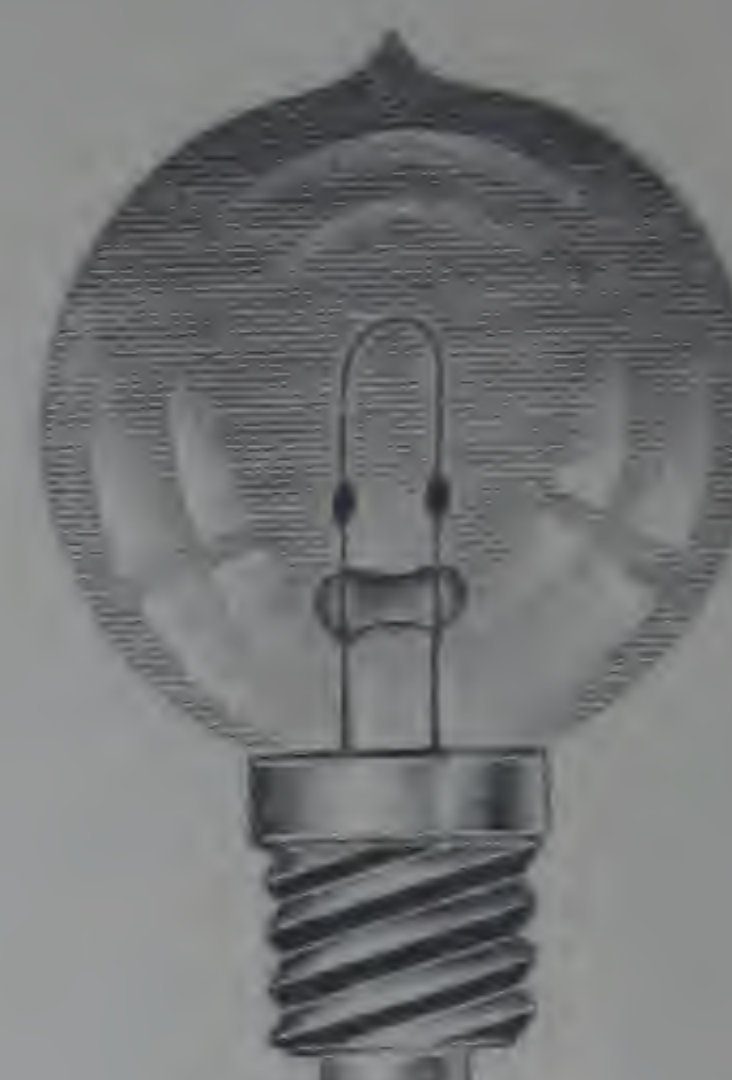
Nos. 33-34



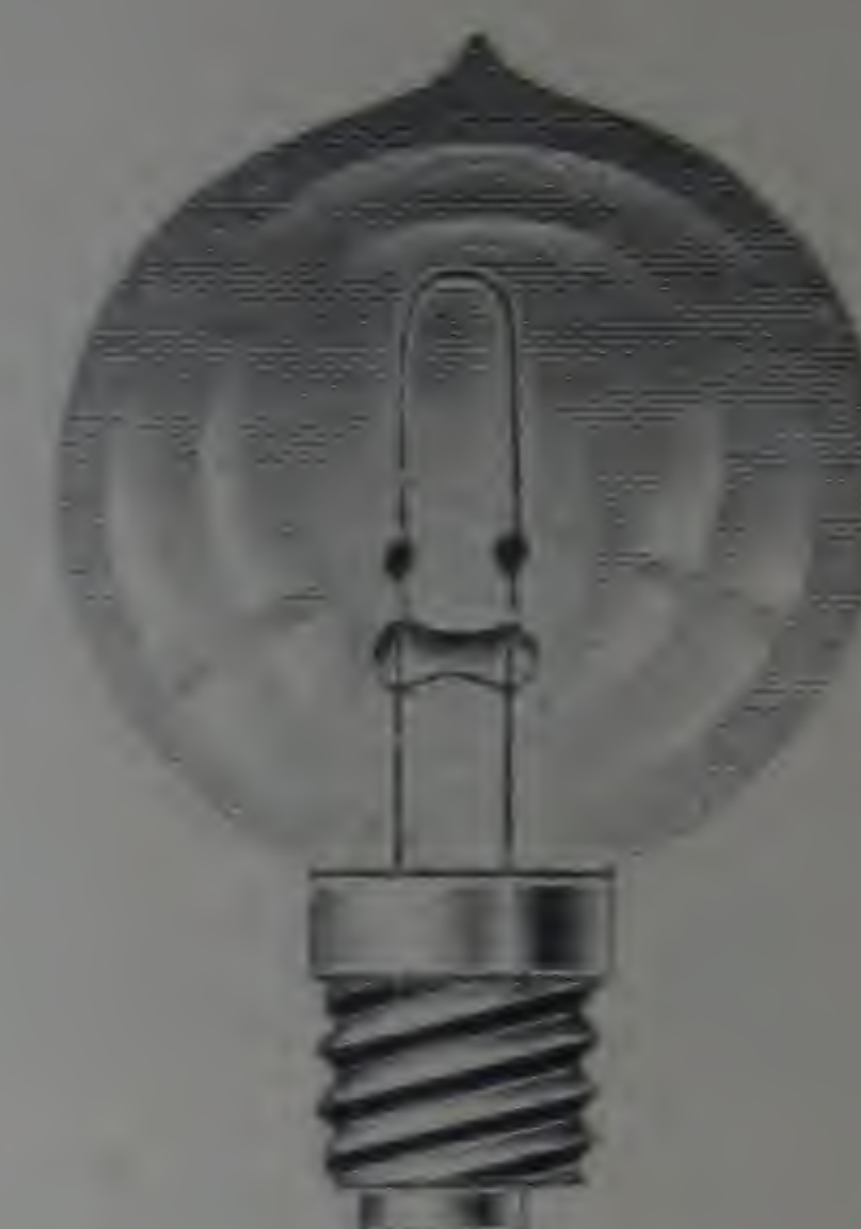
Nos. 35-36



Nos. 37-38



Nos. 39-40



Nos. 41-43

List No.

											Plain. Quantities less than 100 Lamps.	Plain. Quantities 100 Lamps or more.
32	Battery Lamps, $3\frac{1}{2}$ volts, $\frac{3}{4}$ C. P., .25 amp.										\$0.42	\$0.36
33	" " $3\frac{1}{2}$ " 1 " .40 "										.42	.36
34	" " 4 " 1 " .25 "										.42	.36
35	" " 4 " 2 " .60 "										.42	.36
36	" " 6 " 2 " .25 "										.42	.36
37	" " 6 " 3 " .60 "										.48	.42
38	" " 8 " 3 " .25 "										.48	.42
39	" " 6 " 4 " .95 "										.48	.42
40	" " 8 " 3 " .60 "										.48	.42
41	" " 8 " 6 " .65 "										.48	.42
42	" " 10 " 6 " .60 "										.48	.42
43	" " 14 " 1 " .33 "										.48	.42

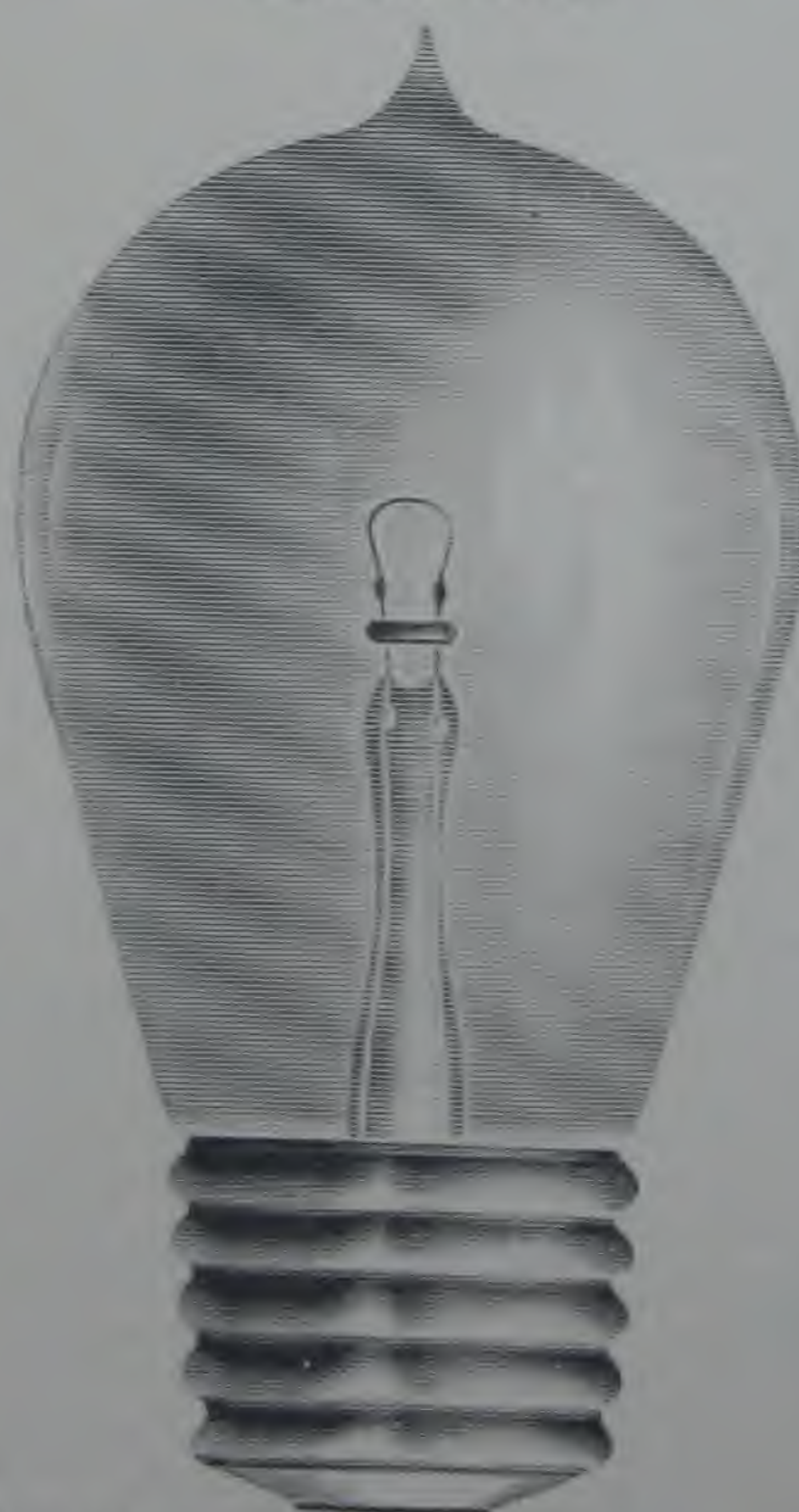
For Frosted Lamps add 4 cents to the price of plain lamps.  
For Superficially Colored Dipped add 8 cents to the price of plain lamps.

## Battery Lamps, with Regular Edison Base

## Candle-flame Lamps

No. 44— $3\frac{1}{2}$  volts

Each . . . \$0.54



4 to 20 volts; 1 to 20 candle-power  
Each . . . \$0.60  
Candle-power cannot be higher  
than voltage.

## Vest-pocket Lamps

No. 158— $3\frac{1}{2}$  volts  
Tipless with lens.

Each . . . \$0.54

## Vest-pocket Lamps

Midget— $3\frac{1}{2}$  volts

Each . . . \$0.54



## Series Lamps



Style I  
1 candle-power, 14 volts



Style J  
4 and 6 candle-power, 20 to 32 volts



Style H  
3 candle-power, 14 volts  
2 " 110 "

	Quantities less than 200 Lamps.	Quantities 200 Lamps or more.
Plain	\$0.46	\$0.40
Frosted	.50	.44
Natural Green or Blue Glass	.56	.50
Natural Ruby Glass	.76	.70
Superficially Colored (dipped)	.54	.48

Miniature or Candelabra Base.

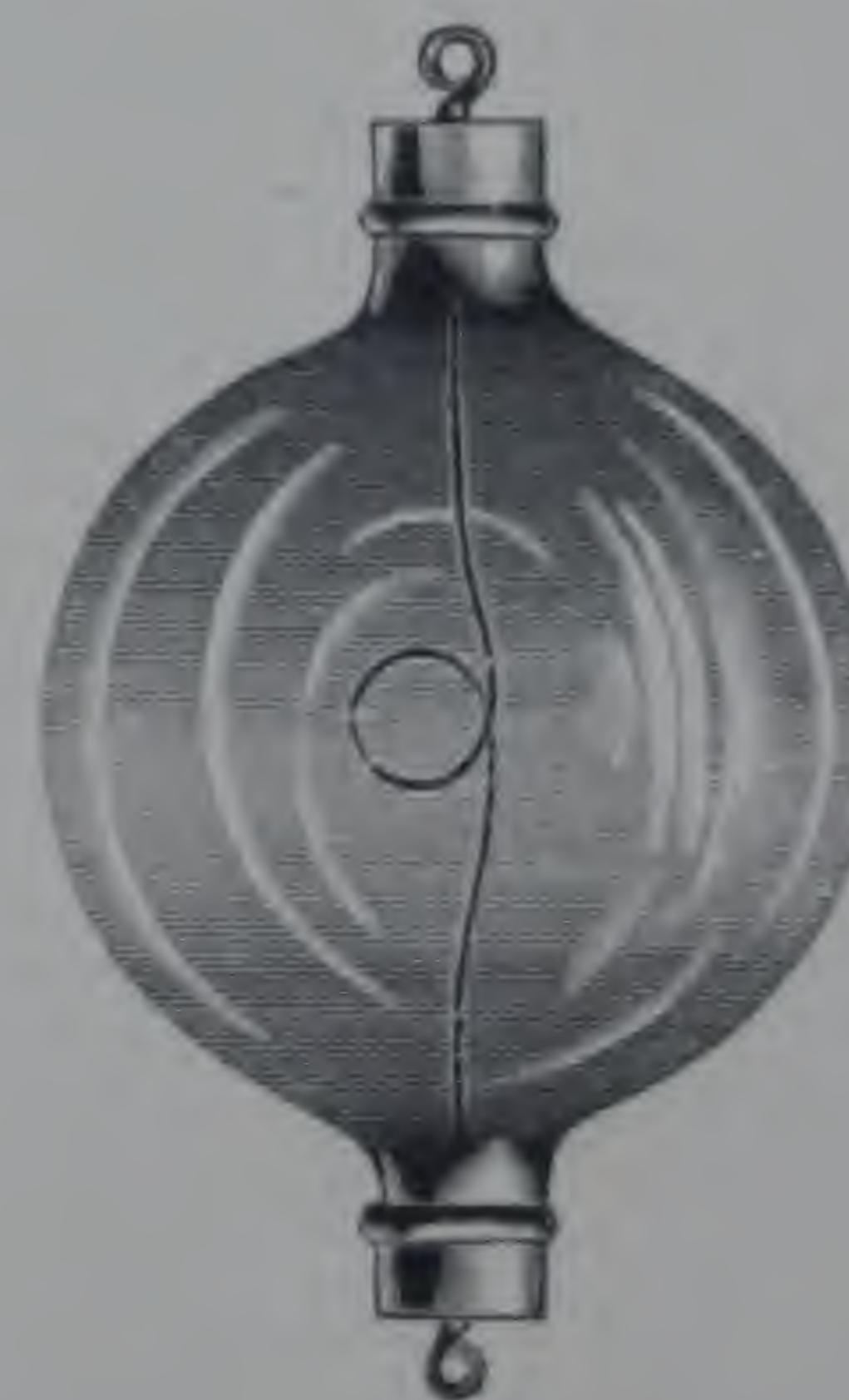
Style I is the regular style lamp for Christmas Tree outfits. Style H is used for general decorative work.  
Style J is used for automobiles and launches, or where storage batteries are used.



Style G 10  
1 candle-power, 10 volts



Style G 12  
3 candle-power, 14 volts



No. 47—Festoon  
3 candle-power, 14 volts

	Prices of Style G 10 and G 12.		Prices of No. 47 Festoon.	
	Quantities less than 200 Lamps.	Quantities 200 Lamps or more.	Quantities less than 200 Lamps.	Quantities 200 Lamps or more.
Plain	\$0.50	\$0.44	\$0.60	\$0.54
Frosted	.54	.48	.64	.58
Natural Green or Blue Glass	.60	.54	.70	.64
Natural Ruby Glass	.80	.74	.90	.84
Superficially Colored (dipped)	.58	.52	.68	.62

Style G 10 and G 12 furnished with Miniature or Candelabra Base.

No. 47 Festoon Lamps are linked together in series for decorative effects and Christmas Tree lighting.



## Decorative Lamps



Style J

2 candle-power, 110 volts. Candelabra Base

	Quantities less than 200 Lamps.	Quantities 200 Lamps or more.
Plain	\$0.46	\$0.40
Frosted	.50	.44
Natural Green or Blue Glass	.56	.50
Natural Ruby Glass	.76	.70
Superficially Colored (dipped)	.54	.48



Style F

4 and 8 candle-power 110 volts. Candelabra Base

	Quantities less than 200 Lamps.	Quantities 200 Lamps or more.
Plain	\$0.50	\$0.44
Frosted	.54	.48
Natural Green or Blue Glass	.64	.58
Natural Ruby Glass	.90	.84
Superficially Colored (dipped)	.58	.52



Style G 16

8 and 16 candle-power, 110 volts. Candelabra Base

	Quantities less than 200 Lamps.	Quantities 200 Lamps or more.
Plain	\$0.56	\$0.50
Frosted	.60	.54
Natural Green or Blue Glass	.70	.64
Natural Ruby Glass	.96	.90
Superficially Colored (dipped)	.64	.58



Style G 12

2 candle-power, 110 volts. Miniature and Candelabra Base

	Quantities less than 200 Lamps.	Quantities 200 Lamps or more.
Plain	\$0.50	\$0.44
Frosted	.54	.48
Natural Green or Blue Glass	.60	.54
Natural Ruby Glass	.80	.74
Superficially Colored (dipped)	.58	.52



## Candelabra Lamps



Style A  
8 candle-power, 110 volts

## Style A

	Quantities less than 200 Lamps.	Quantities 200 Lamps or more.
Plain . . . . .	\$0.56	\$0.50
Frosted . . . . .	.60	.54
Natural Green or Blue Glass . . . . .	.70	.64
Natural Ruby Glass . . . . .	.96	.90
Superficially Colored (dipped) . . . . .	.64	.58

## Style B

	Quantities less than 200 Lamps.	Quantities 200 Lamps or more.
Plain . . . . .	\$0.56	\$0.50
Frosted . . . . .	.60	.54
Natural Green or Blue Glass . . . . .	.70	.64
Natural Ruby Glass . . . . .	.96	.90
Superficially Colored (dipped) . . . . .	.64	.58



Style B  
8 candle-power, 110 volts

## Style D

	Quantities less than 200 Lamps.	Quantities 200 Lamps or more.
Plain . . . . .	\$0.66	\$0.60
Frosted . . . . .	.70	.64
Natural Green or Blue Glass . . . . .	.80	.74
Natural Ruby Glass . . . . .	1.06	1.00
Superficially Colored (dipped) . . . . .	.74	.68



Style D  
4 and 8 candle-power  
110 volts

## Style E

	Quantities less than 200 Lamps.	Quantities 200 Lamps or more.
Plain . . . . .	\$0.56	\$0.50
Frosted . . . . .	.60	.54
Natural Green or Blue Glass . . . . .	.70	.64
Natural Ruby Glass . . . . .	.96	.90
Superficially Colored (dipped) . . . . .	.64	.58



Style E  
4 and 8 candle-power  
110 volts

Based with Edison Screw Candelabra Base. For German or French Candelabra Bases add 10 cents to list.



## Miniature and Candelabra Sockets and Receptacles



No. 5  
Miniature Socket

List No.	Std. Pkg.	Per 100.
50777	200	\$23.25



No. 3  
Candelabra Socket

List No.	Std. Pkg.	Per 100.
50776	200	\$23.50



No. 6  
Candelabra Receptacle

List No.	Std. Pkg.	Per 100.
50778	200	\$10.00



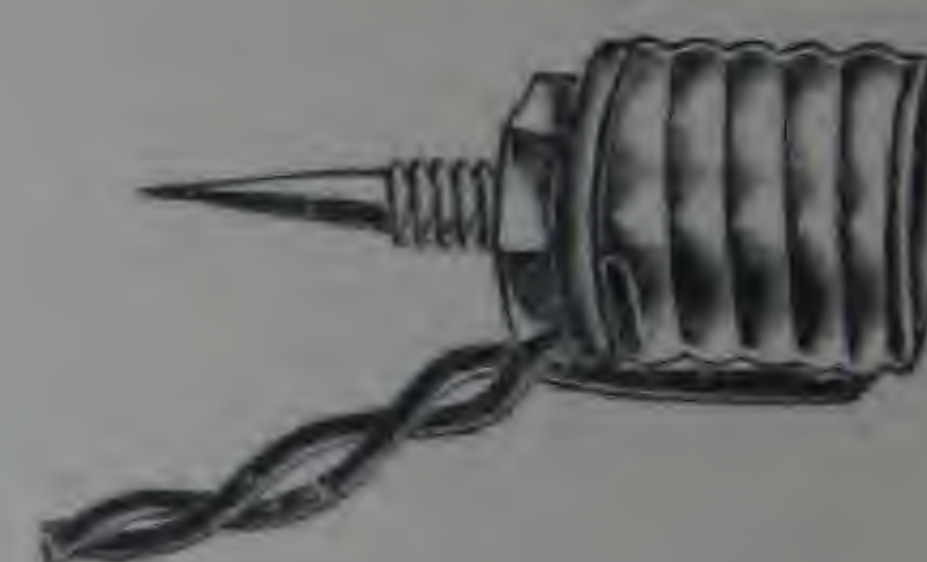
No. 4  
Miniature Receptacle

List No.	Std. Pkg.	Per 100.
9445	200	\$6.00



No. 2  
Candelabra Receptacle

List No.	Std. Pkg.	Per 100.
9446	200	\$6.00



Stick Pin or Christmas Tree  
Receptacle

	Std. Pkg.	Per 100.
Miniature	200	\$12.00
Candelabra	200	11.00



No. 8  
Miniature Pendant

List No.	Std. Pkg.	Per 100.
30857	200	\$12.00



No. 9  
Candelabra Pendant

List No.	Std. Pkg.	Per 100.
30856	200	\$13.50



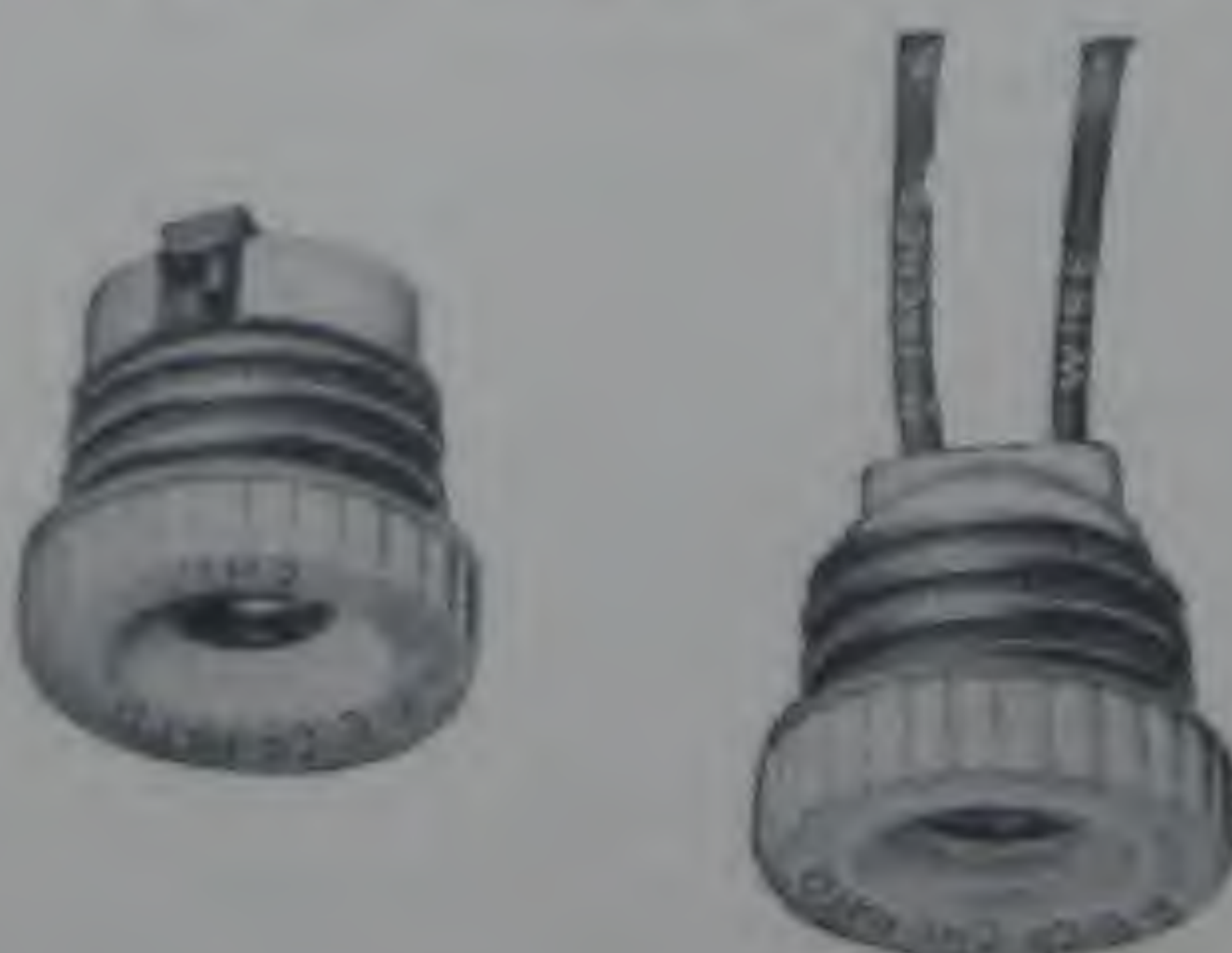
No. 1  
Candelabra

List No.	Std. Pkg.	Per 100.
9444	200	\$12.00

## Sign Receptacles



List No.	Base.	Std. Pkg.	Per 100.
25705	Candelabra	100	\$24.00
279	Miniature	100	24.00



List No.	Base.	Per 100.
310	Candelabra	\$25.00
311	Miniature	25.00
312	Candelabra Weather-proof	25.00
313	Miniature Weather-proof	25.00



List No.	Base.	Std. Pkg.	Per 100.
447	Miniature	250	\$25.00
677	Candelabra	250	25.00



## Hubbell Candelabra Pull Socket With Candle Extension



Side Wall Bracket showing  
Candelabra Socket with and  
without candle



Candelabra Pull  
Socket  
No. 5455



Candle  
Extension  
No. 5481



Porcelain Candle  
No. 5483

List No.						Std. Pkg.	Each.
5455,	Candelabra Pull Socket	.	.	.	.	50	\$0.60
5481,	Candle Extension	.	.	.	.	50	.35
5482,	" Collar	.	.	.	.	50	.05
5483,	4 inch Porcelain Candle	.	.	.	.	50	.15



No. 431

A device for obtaining the candle effect on fixtures fitted with standard Edison base sockets.

Any regular candelabra base lamp may be used in these candles.

No. 431 Candle is designed to match candle gas burners, number 315 is of solid moulded porcelain and is less expensive.

No. 431, each	.	.	.	.	.	\$1.50
" 315, "	.	.	.	.	.	.90



No. 315

## Candelabra Adapter

Permitting the use of Candelabra Base Lamps in  
Standard Edison Base Sockets



By means of this adapter, the miniature lamp, with its candelabra base which is too small to fit in the regular lamp socket, is made immediately available for use on an ordinary lighting circuit.

List No.		Std. Pkg.	Per 100.
35699	.	100	\$10.00

## Miniature & Candelabra Adapters



Miniature



Candelabra

To adapt a miniature base lamp to an American candelabra socket.

Per 100 .	.	.	.	.	.	\$10.00
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To adapt an American candelabra lamp to a French candelabra socket.

Per 100 .	.	.	.	.	.	\$10.00
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## Stereopticon Lamps

Stereopticon Lamp with Conical  
Spiral FilamentStereopticon Lamp with Cylindrical  
Spiral Filament

## Regular Stereopticon Lamps

Horizontal Candle-power.	Volts.	Watts.	Diameter.	Shape of Filament.	Plain Lamps with Edison Base.
20	75 to 130	76	2 1/2 inches	Conical Spiral	\$0.80
32	75 " 130	128	3 1/8 "	" "	1.20
50	75 " 130	200	3 1/8 "	" "	1.50
100	75 " 130	375	3 3/4 "	Cylindrical Spiral	3.00
32	200 " 250	128	3 1/8 "	" "	1.60
50	200 " 250	200	3 3/4 "	" "	2.00
100	200 " 250	375	3 3/4 "	" "	4.50

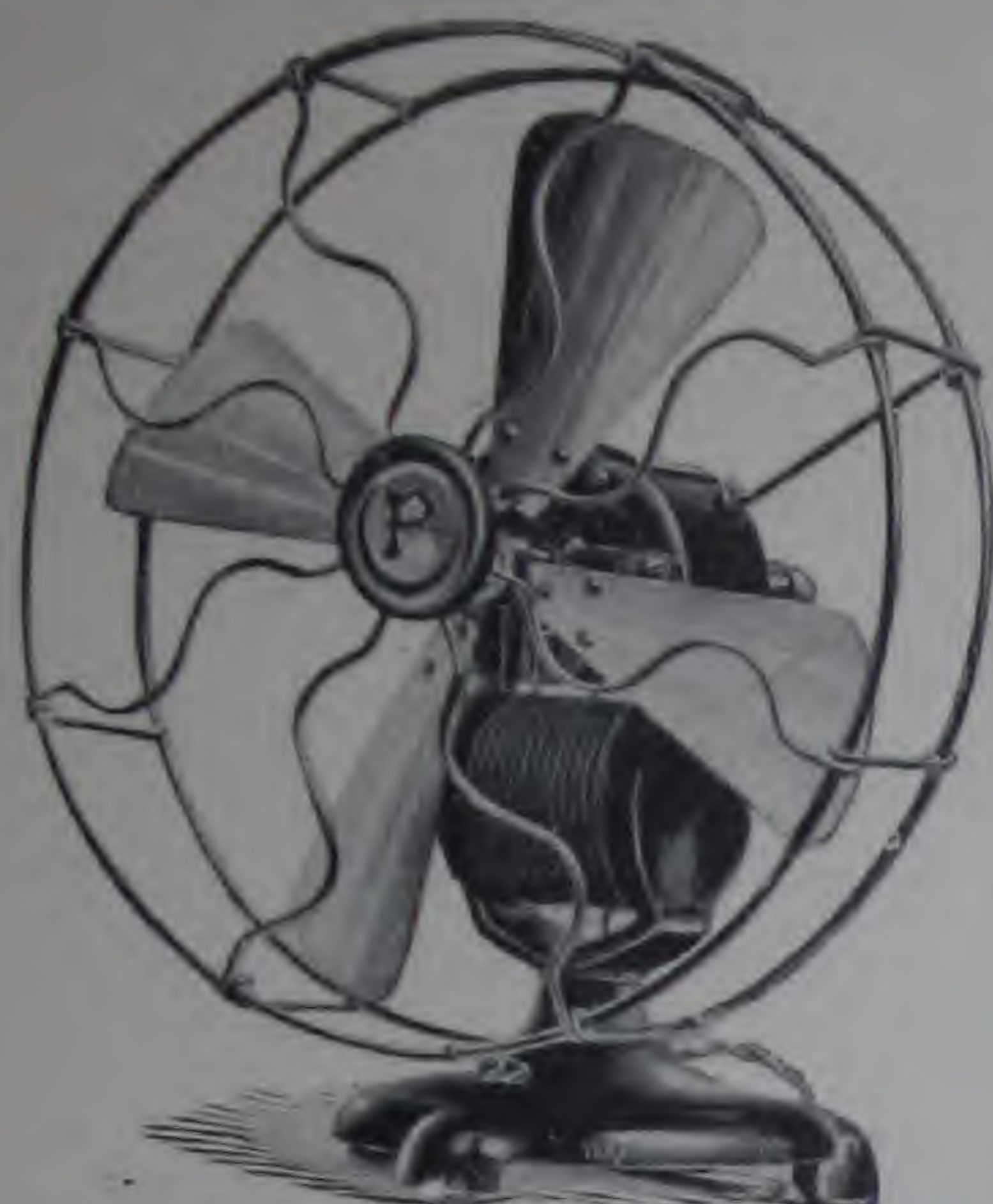
## Special Stereopticon Lamps

Horizontal Candle-power.	Volts.	Watts.	Diameter.	Shape of Filament.	Plain Lamps fitted with Edison Base.
75	75 to 130	232	3 1/8 inches	Conical Spiral	\$1.50
100	75 " 130	260	3 1/8 "	" "	1.50

The special stereopticon lamps listed above are the regular fifty candle-power lamps operated at a higher voltage than normal, which shortens the life of the filament, but a very white and effective light is produced.



Battery Fan



10" blade . . . \$15.00

Battery Fan Box



Complete with 20 Dry Batteries,  
Cord and Connections

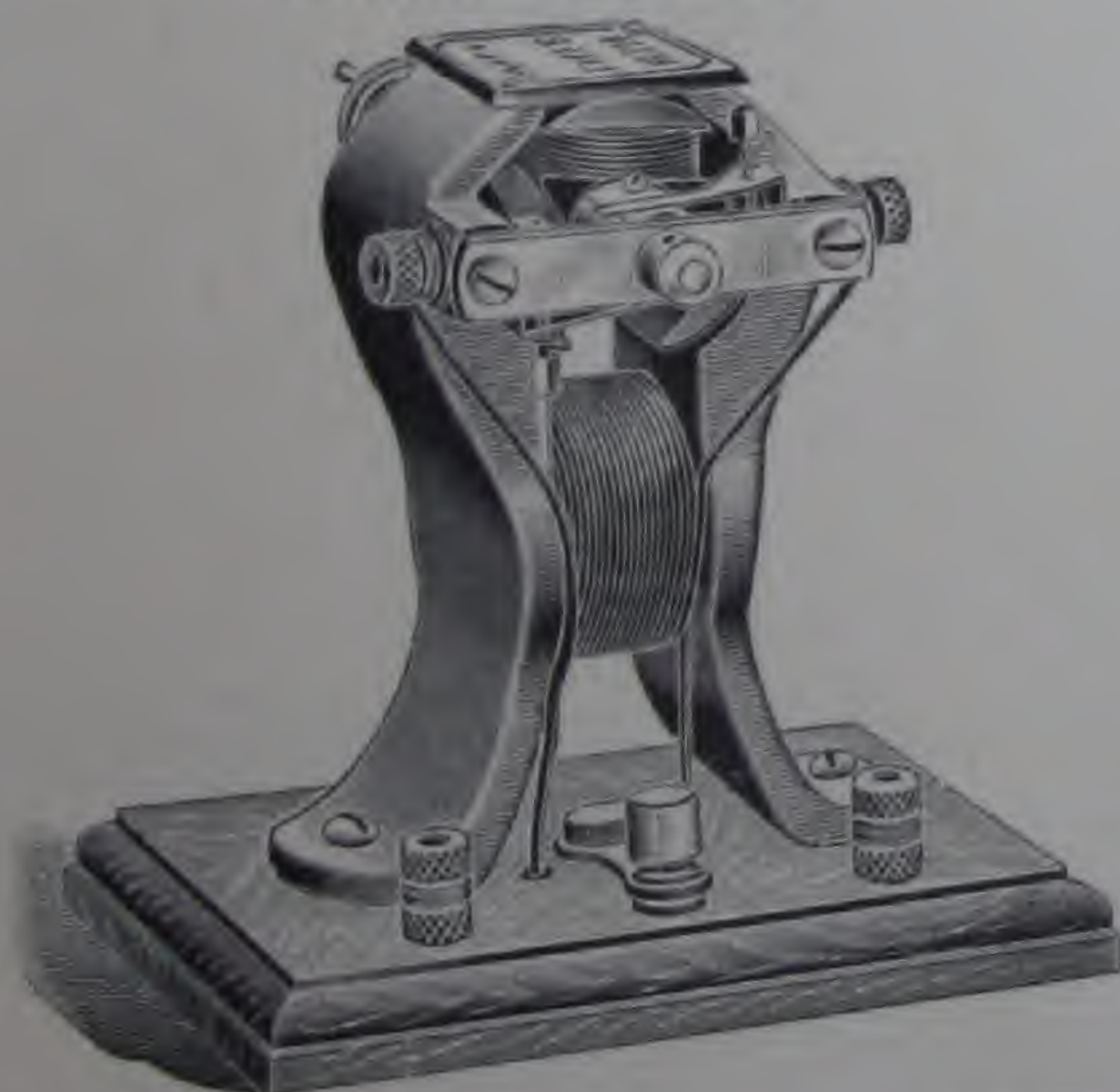
Each . . . \$12.00

Decorative Lighting Outfits



No. 1,	8 light,	complete	\$10.00
" 2,	16 "	" "	15.00
" 3,	24 "	" "	24.00
" 4,	32 "	" "	30.00

Small Motors



Type A,	3 1/4" high	\$2.00
" B,	4 1/2" "	4.00

Alarm Clock Attachments



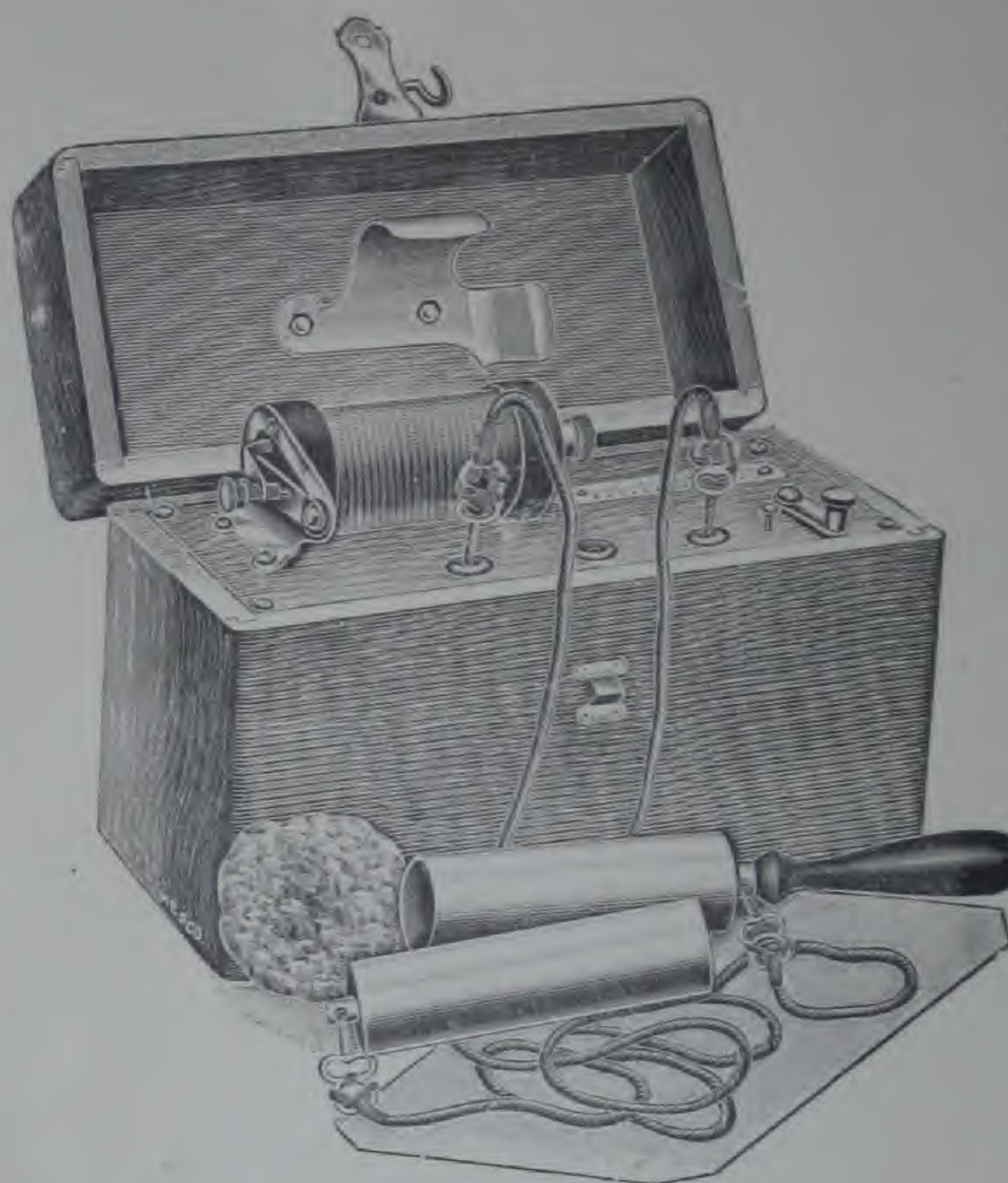
Can be used with any alarm clock

Each . . . \$2.25



## Medical Batteries and Accessories

## Anti-Doc. Medical Battery



Each, complete . . . . . \$5.00

## Foot Plate Electrode



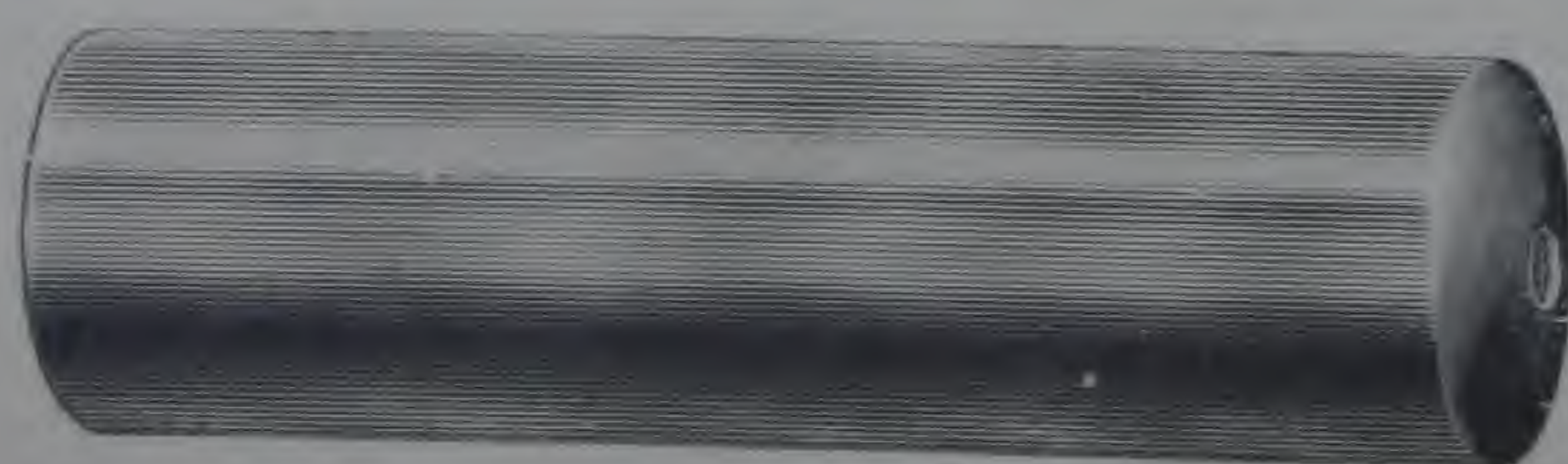
Each . . . . . \$0.70

## Medical Battery Cords



Per pair . . . . . \$0.50

## Medical Battery Handles



Per pair . . . . . \$0.40

## Sponge Electrode

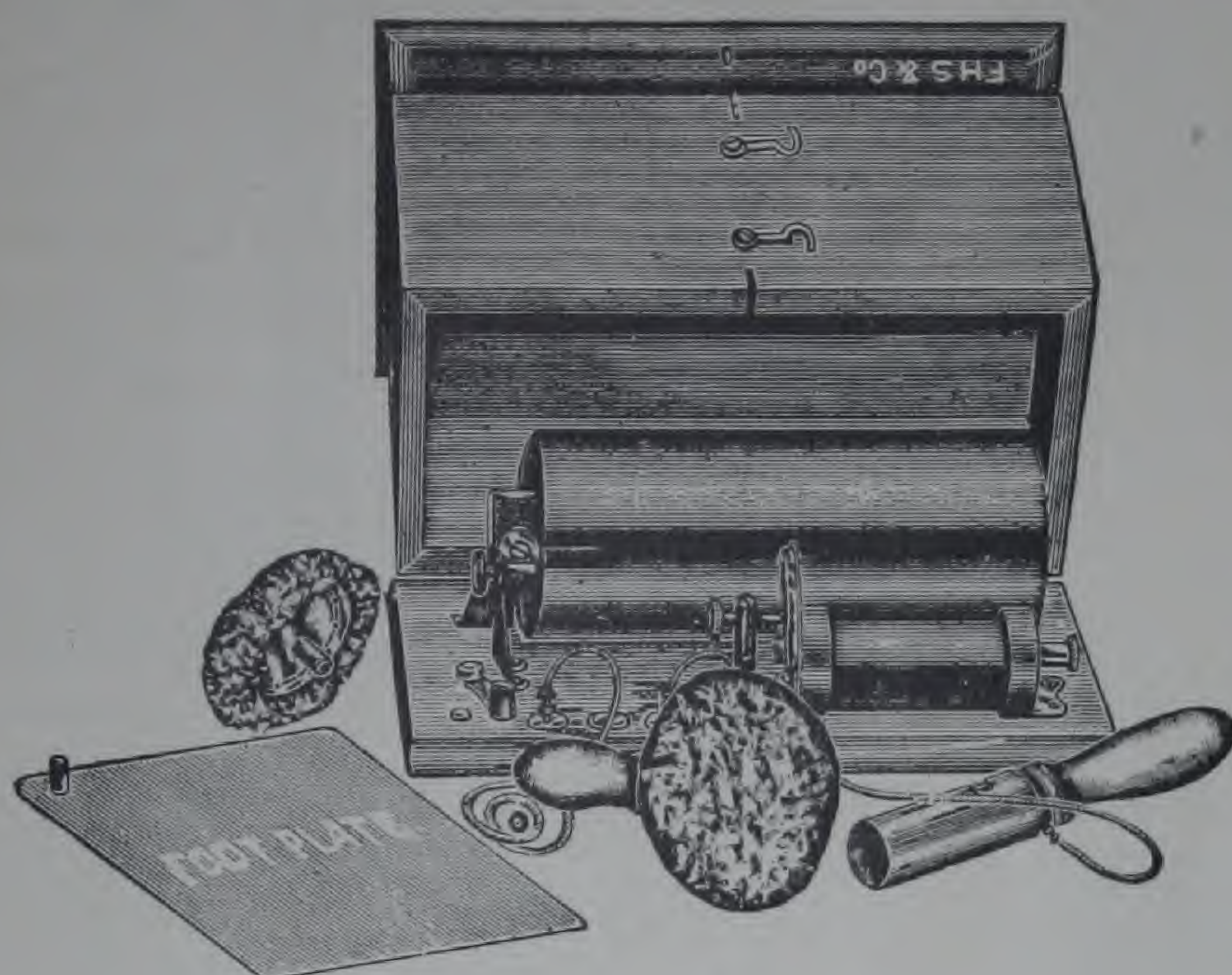


With handle . . . . . \$0.80  
Without handle . . . . . .60



## Medical Batteries and Accessories

Home No. 4 Double Deck Medical Battery



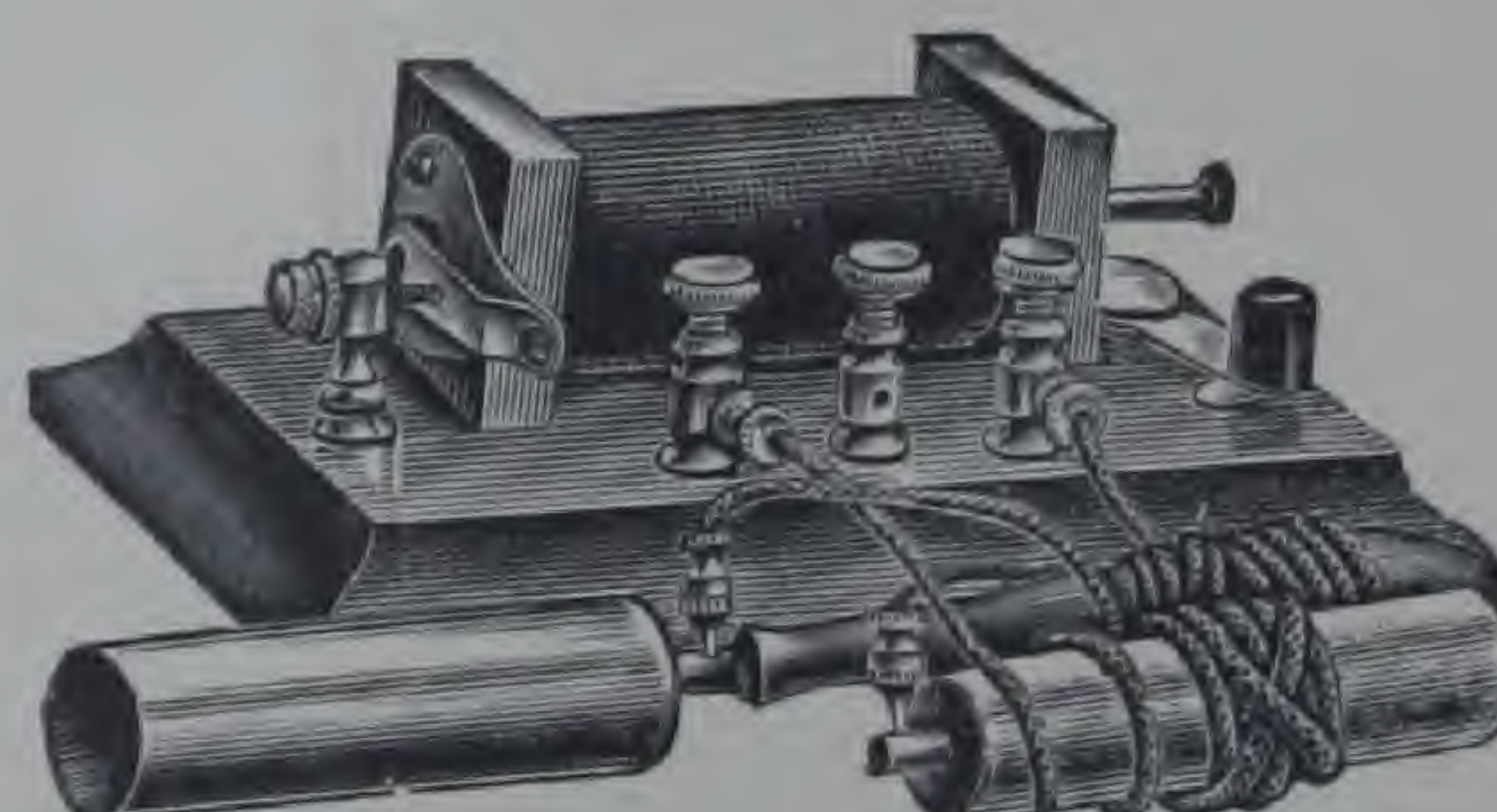
Each, complete . . . . . \$6.50

Hair Brush Electrode



Each . . . . . \$2.00

Medical Induction Coil



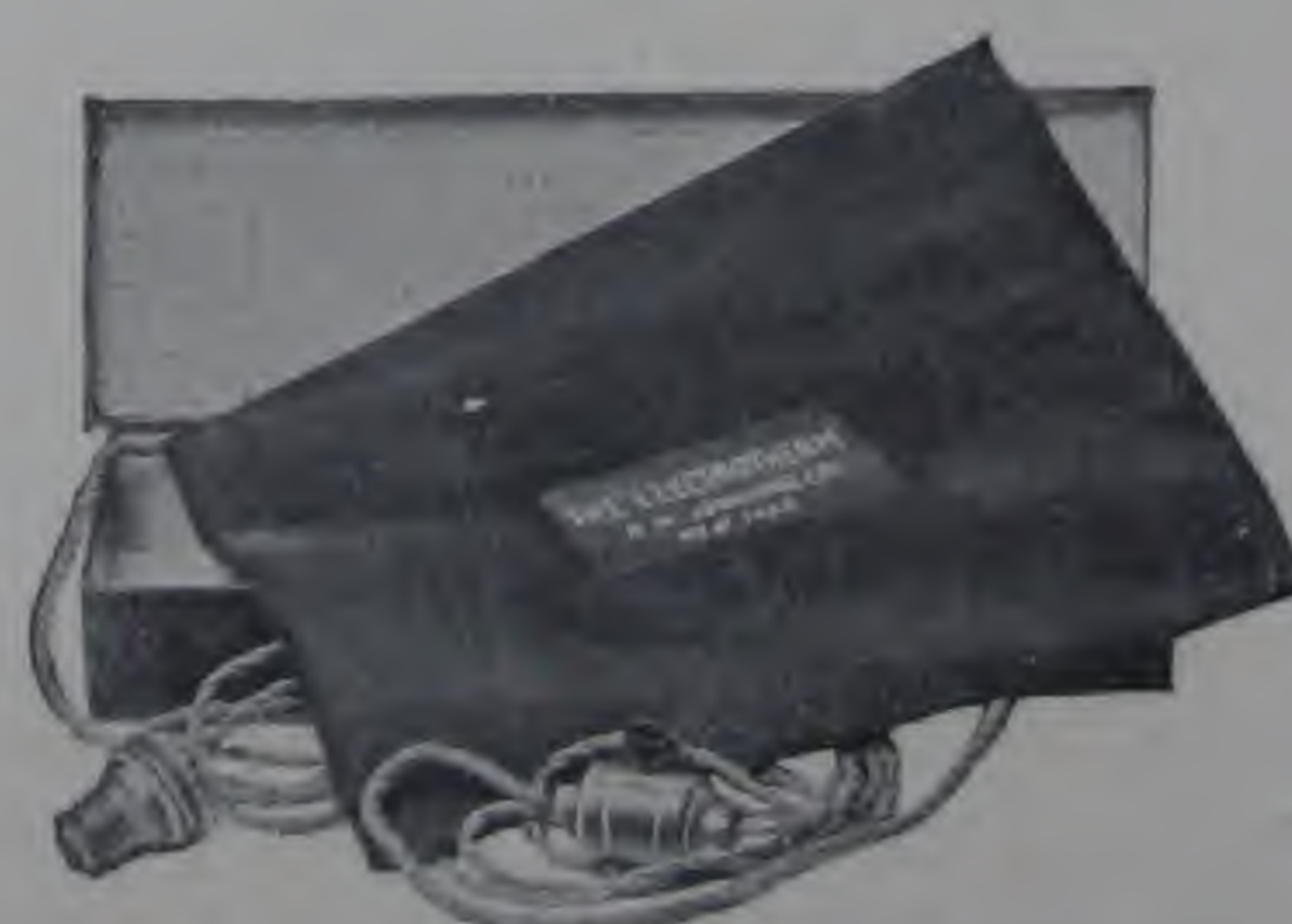
Each . . . . . \$3.00

Massage Roller Electrode



Each . . . . . \$0.80

Electrotherm



The electrical substitute for hot water bottles

Each . . . . . \$13.00



## Vest Pocket Lights



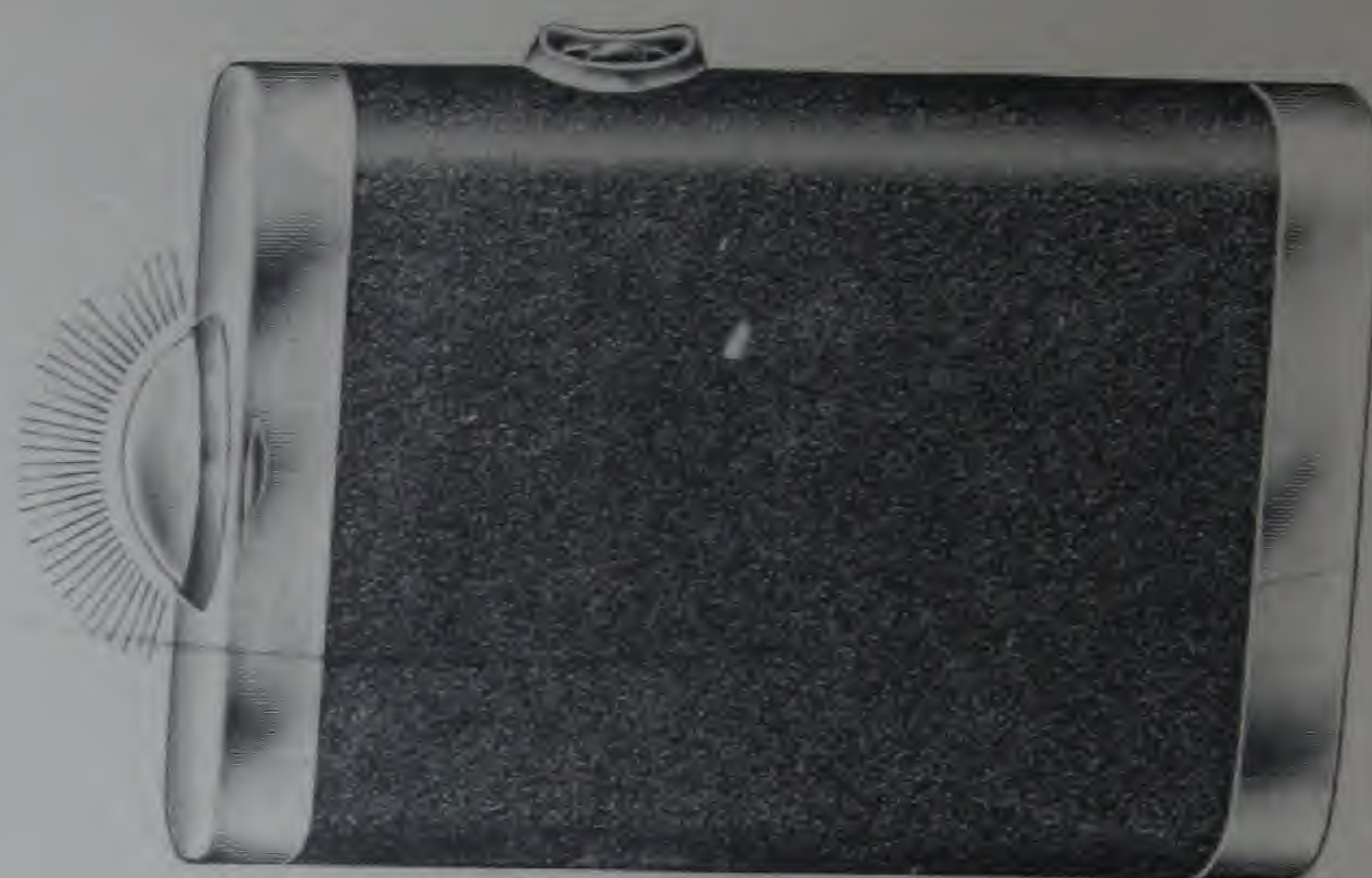
Size, 1 x 2 1/4 x 3 1/2"

Style.	List.
A1, Fibre Case . . . . .	\$1.00
A, Metal Case, Alligator covered . . . . .	.90
B, " " Cloth covered . . . . .	.80
BB, " " Black enameled . . . . .	.70
C " " Marbleized . . . . .	.65

## Extra Batteries

Style O. A. fits all lights . . . . .	\$0.30
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## Coat Pocket Lights



Size, 1 1/8 x 3 3/8 x 5"

	List.
Metal case, Black enameled . . . . .	\$1.00
" " Cloth covered . . . . .	1.25

## Extra Batteries

Style O. P. fits both lights . . . . .	\$0.35
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## Flash Lights



No.	Size	Material	List.
No. 1,	1 1/2 x 8 1/2"	Cloth covered	\$1.25
" 2,	1 1/2 x 11"	" "	1.75
" 3,	1 1/2 x 13"	" "	2.00
" 4 1/2,	1 1/2 x 8 1/2"	Fibre case	1.50
" 5 1/2,	1 1/2 x 11"	" "	2.00
" 6 1/2,	1 1/2 x 13"	" "	2.50

## Extra Batteries

No. 10 (fits No. 1 and 4 lights) . . . . .	\$0.30
" 20 " " 2 " 5 " . . . . .	.30
" 30 " " 3 " 6 " . . . . .	.50

## Flash Lights with Large Lens



No.	Size	Material	List.
No. 14 1/2,	1 1/2 x 8 1/2"	Fibre case	\$2.50
" 15 1/2,	1 1/2 x 11"	" "	3.00
" 16 1/2,	1 1/2 x 13"	" "	3.50

## Extra Batteries

No. 10 (fits No. 14 light) . . . . .	\$0.30
" 20 " " 15 " . . . . .	.30
" 30 " " 16 " . . . . .	.50



## Comet Flash Light



No. 5, 1 1/4 x 8 1/2", Cloth covered	1.00
" 6, 1 1/4 x 8 1/2", Black enameled	1.00
Extra battery, No. 10, fits above	0.30

## House Lamp



No. 211

Complete	1.00
Extra battery, No. 610	0.30

## Advertising Signs



Series or Multiple  
Prices on application.

## Electric Scarf Pin



Each	1.00
Extra battery, No. M20	0.30

## Electric Candle



No. 81

Complete	1.00
Extra battery, No. 610	0.30

## Surgical and Dental Lamp



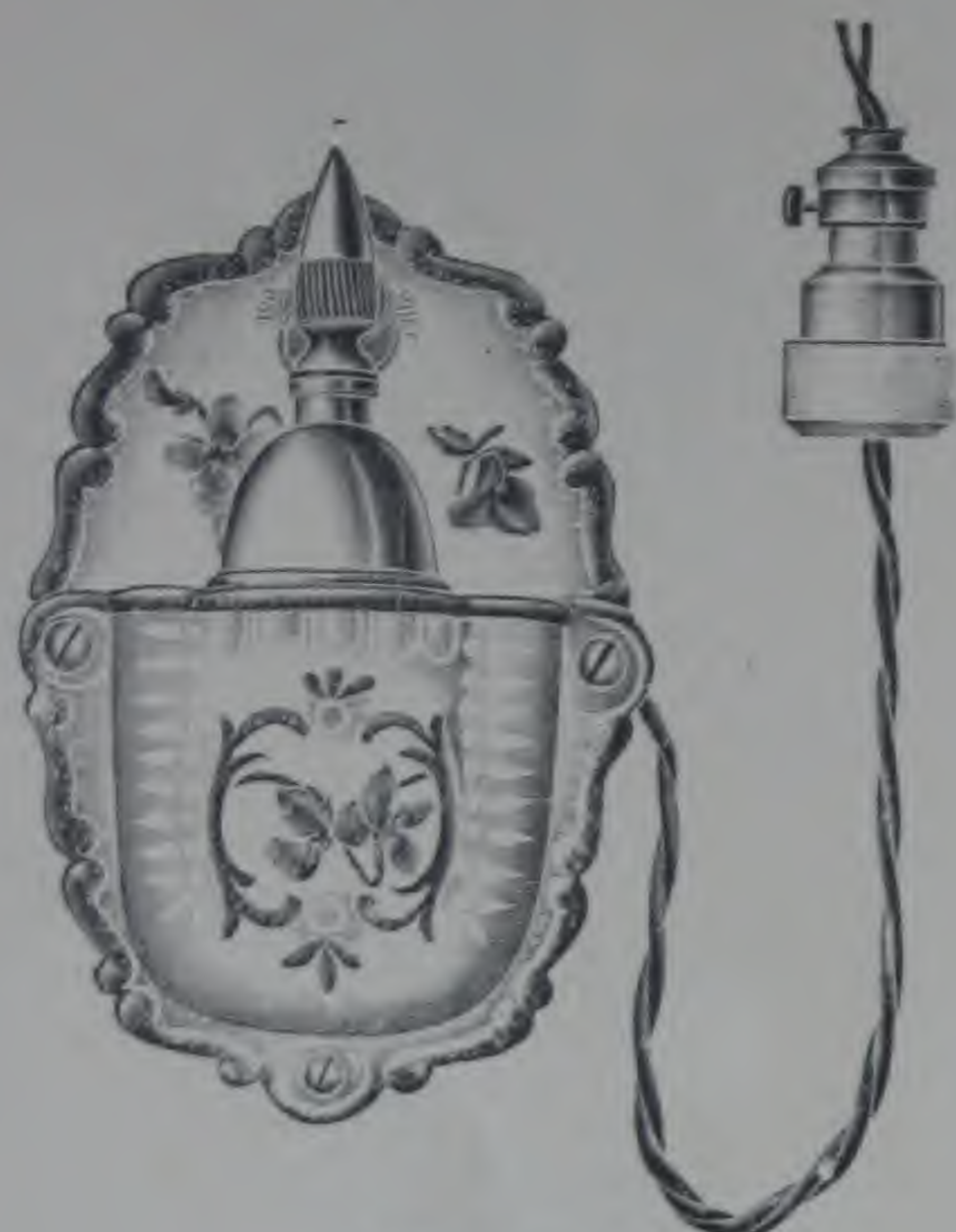
No. 311

Dim. 7 x 4 x 1 1/2"

Handsome Mirror in case, complete, with two bulbs.	
Complete	\$4.00
Extra battery	0.30



## Cigar Lighters



No. 817

For electric light circuits (direct current) . . . . .	List. \$4.00
No. 822 similar to No. 817, but operated by batteries . . . . .	4.00



Pendant Type

No. 906, Lighter only . . . . .	\$3.40
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## Range and Gas Lighter



No. 93, complete . . . . .	List. \$1.50
Extra batteries, No. 930 . . . . .	.25
" tips . . . . .	.25

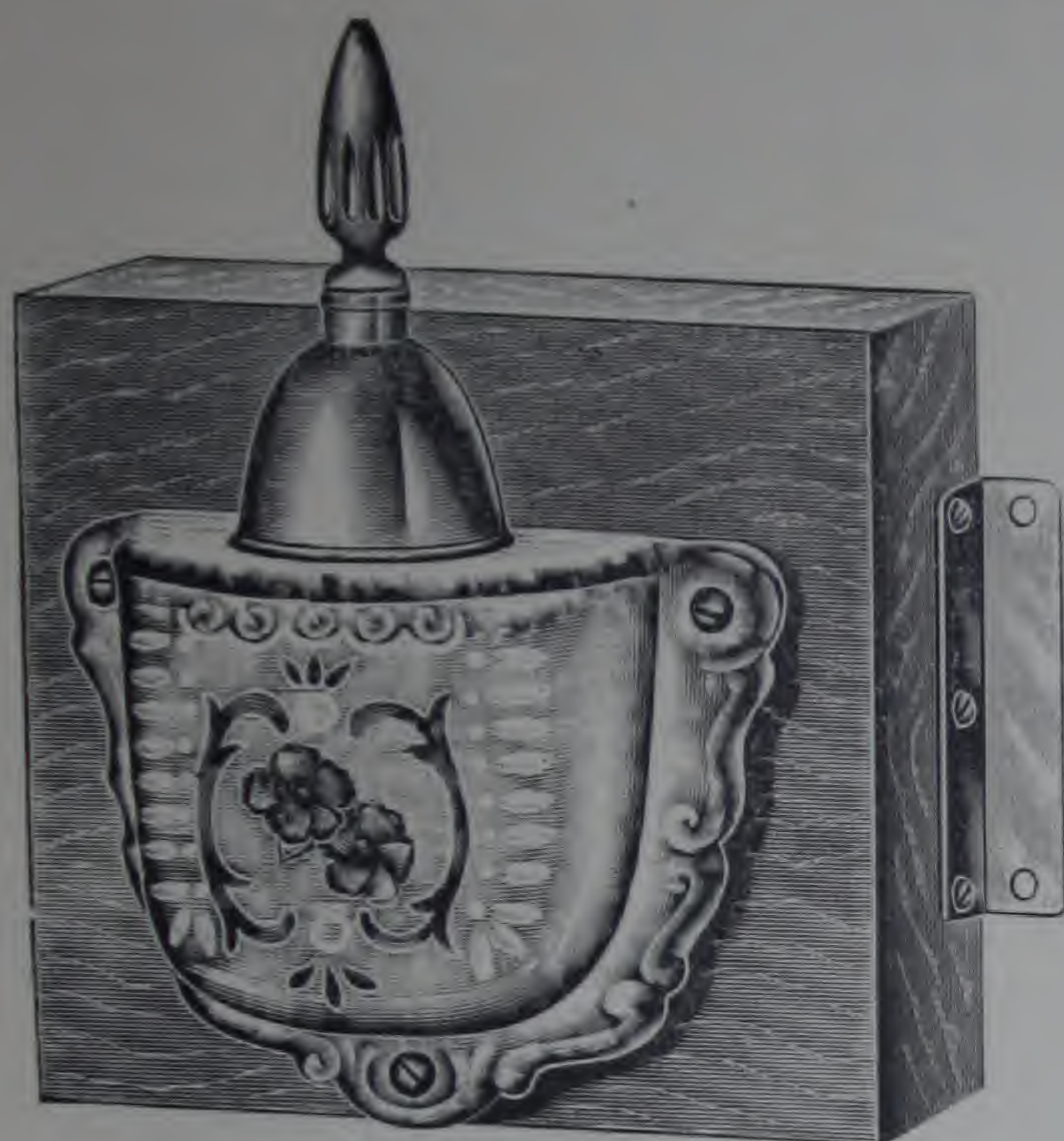
## Gas Lighter



No. 94, complete . . . . .	List. \$2.00
Extra batteries, No. 930 . . . . .	.25
" tips . . . . .	.25



## Cigar Lighters

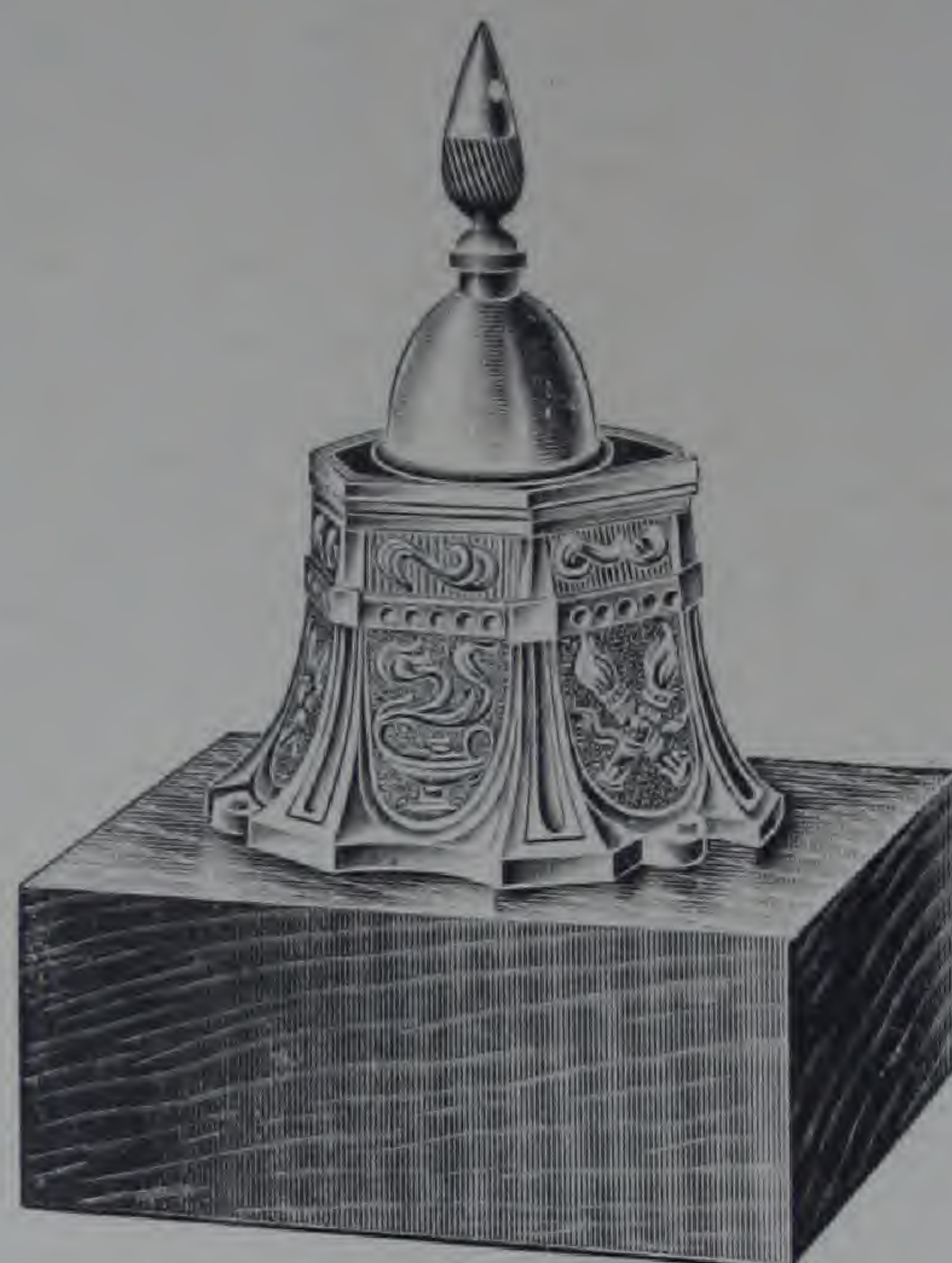


No. 814, Wall Type

	List.
Dry Battery Lighter, complete .	\$5.00

## Extra Dry Batteries

No. 610, fits No. 814 Lighter .	\$0.30
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No. 815, Stand Type

	List.
Dry Battery Lighter, complete .	\$5.00

## Extra Dry Batteries

No. 610 fits No. 815 . . .	\$0.30
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## Two Ball Adjusters

Style A, Plain finishes—Green, Aluminum, Bronze and Black .	\$1.20
" B, Embossed finishes—Brass and Oxidized Brass . . .	1.80

## Electric Irons



Two Ball Adjusters

Data and prices of all sizes on application.



**Elevator Cable**

(For Annunciator)

	Per foot.
2 Conductor or more, per conductor .	\$0.04

**Elevator Cable**

(For Electric Lights)

	Per 100 feet.
2 Conductor, No. 14 . . . .	\$10.29
2 " " 12 . . . .	13.10
2 " " 10 . . . .	16.91

**Pear Push and Battery Cords**

No.		Per yard.
1,	Single Conductor . . . .	\$0.15
" 4,	Two " . . . .	.20
" 4½,	Three " . . . .	.35
" 12,	Two " . . . .	.35
" 12½,	Three " . . . .	.48

Colors: Red, Green, Blue and Maroon. Numbers  
 1, 4 and 4½ Silk braided covering. Numbers  
 12 and 12½ Silk wrap, twisted conductors.

**Fishing Wire**

Per 100 feet . . . . .	\$2.00
------------------------	--------

**Magnet Wire**

Pure Copper Wire of uniform diameter, evenly and closely wound with Cotton or Silk

**Price per Pound**

No. B & S Gauge.	Cotton. Single.	Cotton. Double.	Silk. Single	Silk. Double.	No. B & S Gauge.	Cotton. Single.	Cotton. Double.	Silk. Single.	Silk. Double.
16	. . .	. . .	\$1.12	\$1.53	29	\$1.50	\$1.89	\$2.75	\$3.76
17	. . .	. . .	1.12	1.53	30	1.65	2.07	2.95	4.02
18	. . .	. . .	1.15	1.57	31	1.80	2.23	3.25	4.40
19	. . .	. . .	1.15	1.57	32	1.95	2.28	3.45	4.53
20	\$0.68	\$0.74	1.18	1.61	33	2.40	2.85	3.90	5.10
21	.70	.88	1.20	1.63	34	2.85	3.42	4.10	5.30
22	.76	.95	1.30	1.76	35	3.25	3.88	5.85	7.78
23	.83	1.05	1.42	1.93	36	4.37	4.93	7.00	8.88
24	.90	1.14	1.56	2.13	37	6.75	7.25	11.00	13.63
25	1.00	1.27	1.81	2.48	38	9.00	9.50	13.00	14.50
26	1.10	1.38	2.10	2.88	39	11.00	12.00	15.00	18.00
27	1.25	1.57	2.25	3.07	40	13.00	15.00	20.00	23.00
28	1.35	1.69	2.38	3.23					

Price on large sizes on application

We carry in stock Wires and Cables of every description.



## Weather-proof Wire

All sizes. Prices on application.



Weather-proof Wire

## Bell or Annunciator Wire

All sizes. Prices on application.



Bell or Annunciator Wire

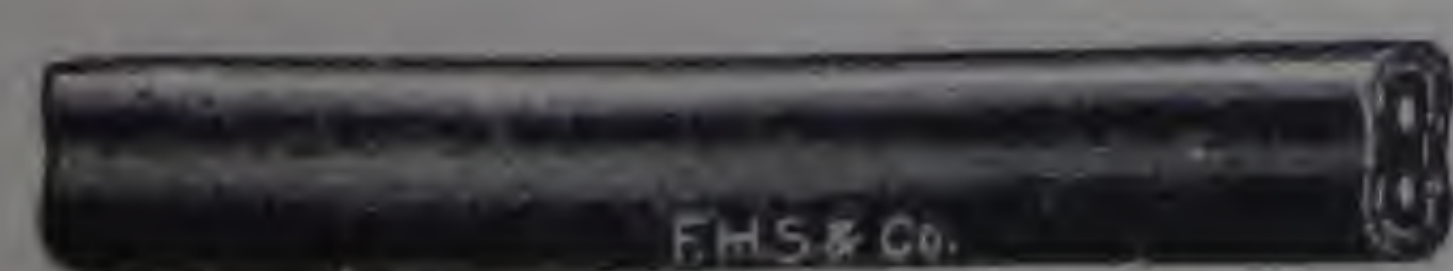
## Damp-proof Office Wire

All sizes. Prices on application.



Damp-proof Office Wire

## Lead Encased Cable



Lead Encased Cable

						Per 1000 feet. Single.	Per 1000 feet. Duplex.
No. 18.	.	.	.	.	.	\$50.00	\$88.00
" 16.	.	.	.	.	.	57.00	99.00
" 14.	.	.	.	.	.	66.00	122.00

We carry in stock Wires and Cables of every description.



## Electric Clocks

For use in Public Buildings, Schools, Banks, Office Buildings and Industrial Establishments where a reliable time system is an essential feature.

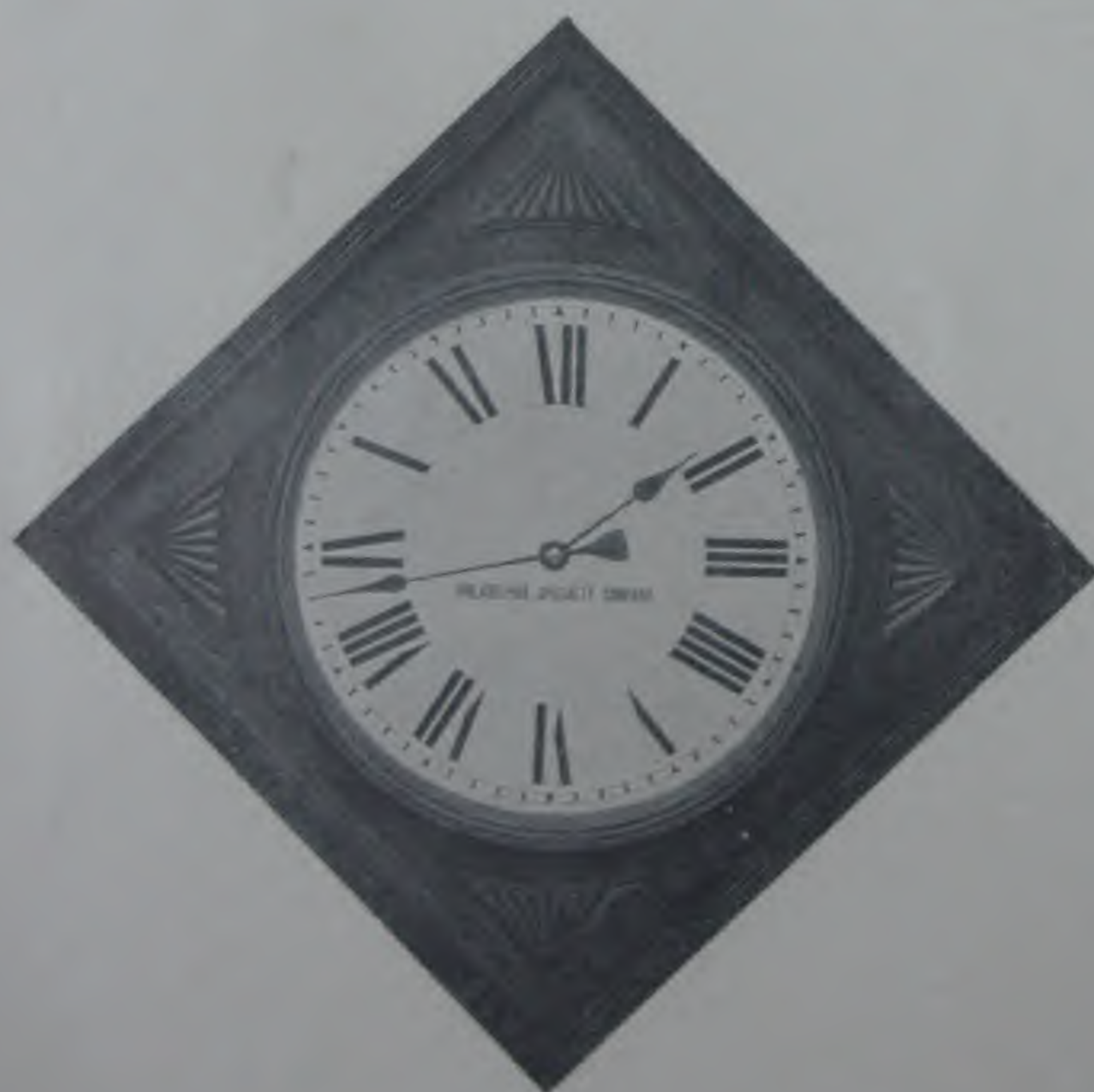


No. 60 Regulator

### No. 60 Regulator

This is a fine self-winding clock, polished movement with polished cut steel pinions, furnished with wood rod and metal ball or fine mercurial pendulum, case quartered oak of any desired finish, cases may also be furnished of any other woods. We can fit any of these Regulators with attachments for operating secondary clocks, bells, gongs, steam whistles, etc. Two cells of dry battery supply the motive power for this clock for one year.

Prices of different styles furnished on application



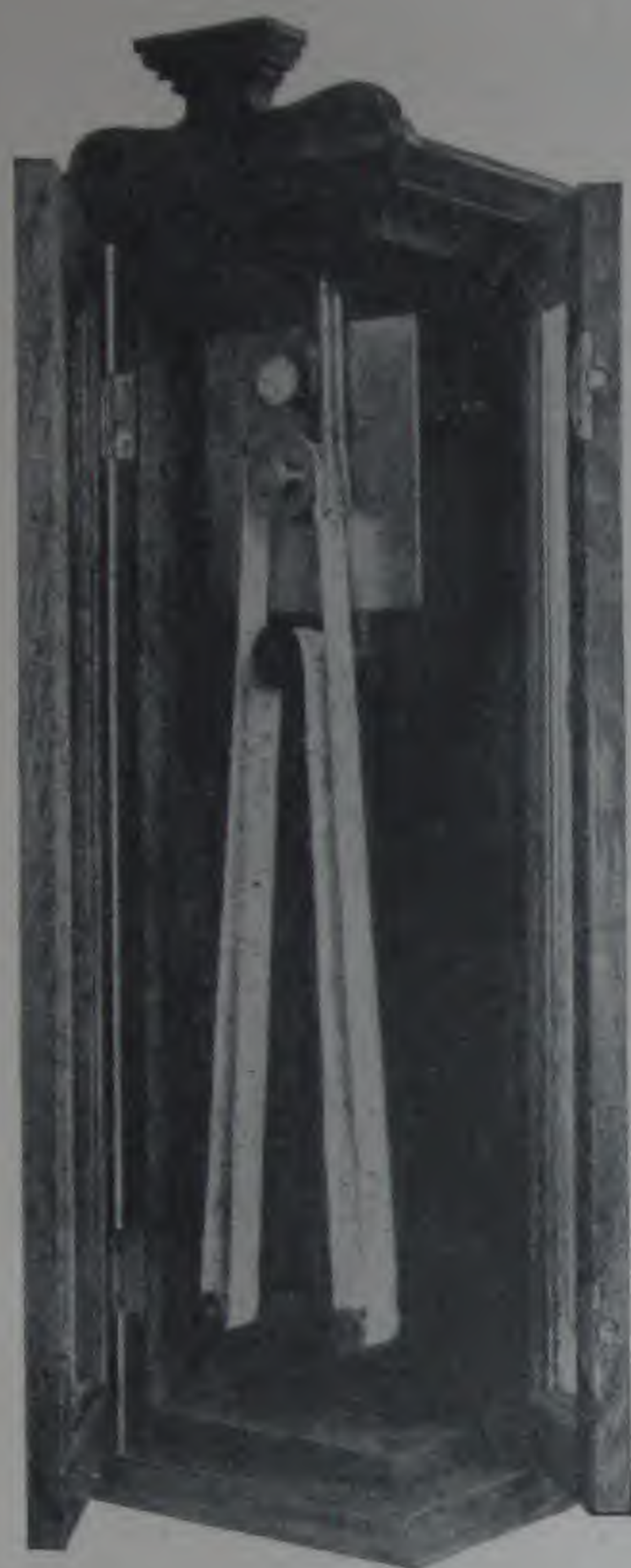
No. 112 Secondary Clock

### No. 112 Secondary Clock

The movements of these clocks are of the same workmanship as the Regulator movements, are strongly made and will last a lifetime without oil or cleaning. Dial, 12"; cases—oak, cherry or mahogany. The recent improvement in these clocks make them the best on the market.

Prices furnished on application





## No. 2 Signal or Program Clock

As will be noted this clock is of the ribbon type which makes it possible to keep a record of programs used at different times and can be instantly changed. These clocks are entirely automatic, cutting out bells at all times when not required. Clocks are furnished to operate any number of circuits of any number of bells. These clocks have also been greatly improved since their first introduction.

Prices according to requirements, quoted on application

Magneto Watchman's Clock, Style D.



## One Station Recorder



### Fancy Case

4 Station								\$60.00
6 "								70.00
8 "								80.00
10 "								90.00
12 "								100.00
15 "								115.00
20 "								140.00
25 "								165.00
Each additional station								5.00

Works with battery current and is useful in many places where only one station is required.

Each . . . . .	\$12.00
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### Magneto Watchman's Clock Style E



Plain Case

3 Station	.	.	.	.	.	\$45.00
4 "	.	.	.	.	.	50.00
5 "	.	.	.	.	.	55.00
6 "	.	.	.	.	.	60.00

### Wood Box Magneto Station



No. 10

Each . . . . . \$5.00

### Flush Iron Box Magneto Station

#### Iron Box Magneto Station



No. 9

Each . . . . . \$8.00



No. 12

Each . . . . . \$8.00

(For Key Stations see page 37)



### B. and S. Wire Gauge



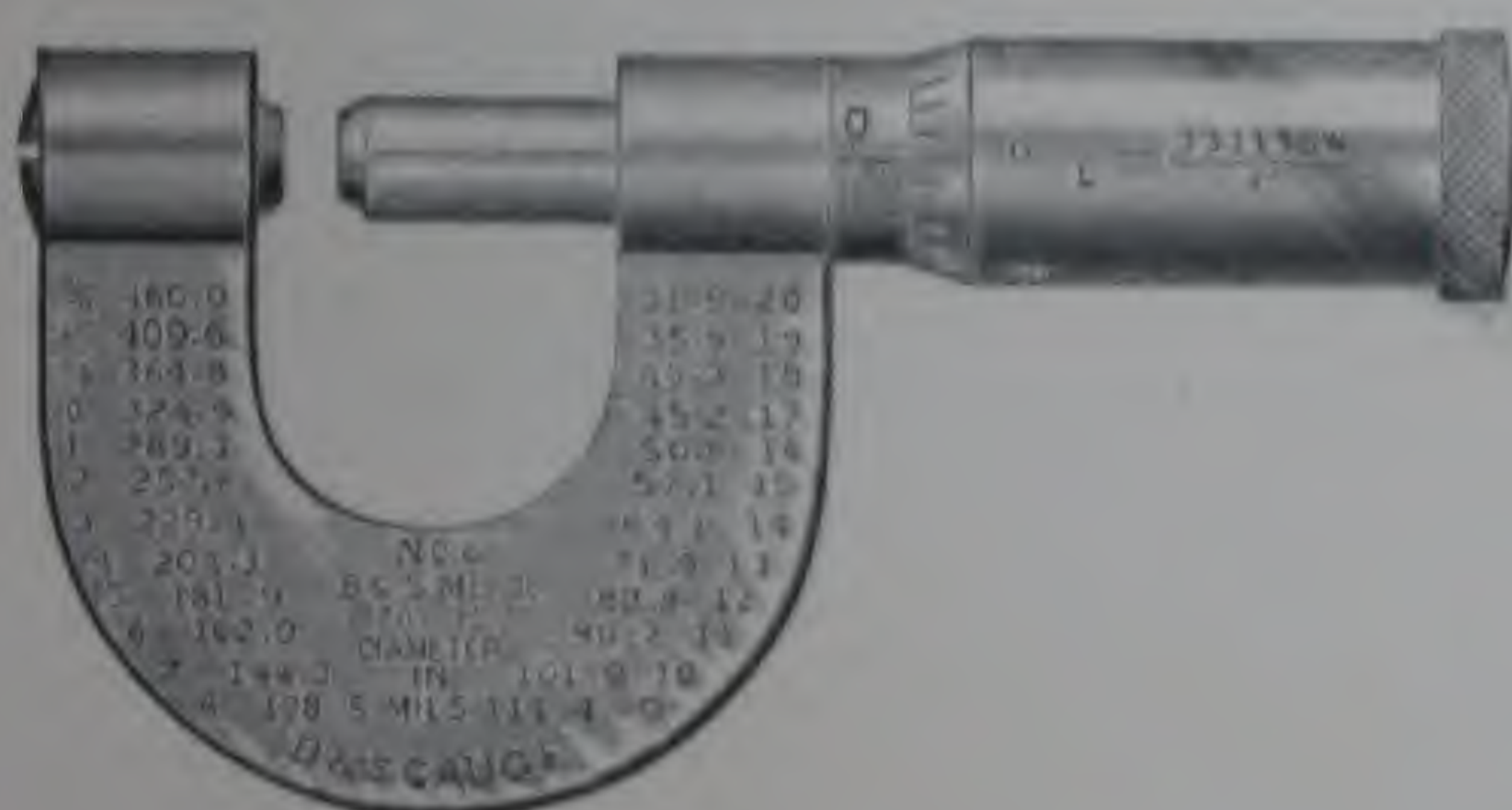
Sizes 0 to 36	\$5.00
" 5 " 36	4.00

### Novelty Wire Gauge



Each	\$1.00
------	--------

### No. 6 Micrometer



Each	\$9.00
------	--------

### Polarity Indicators



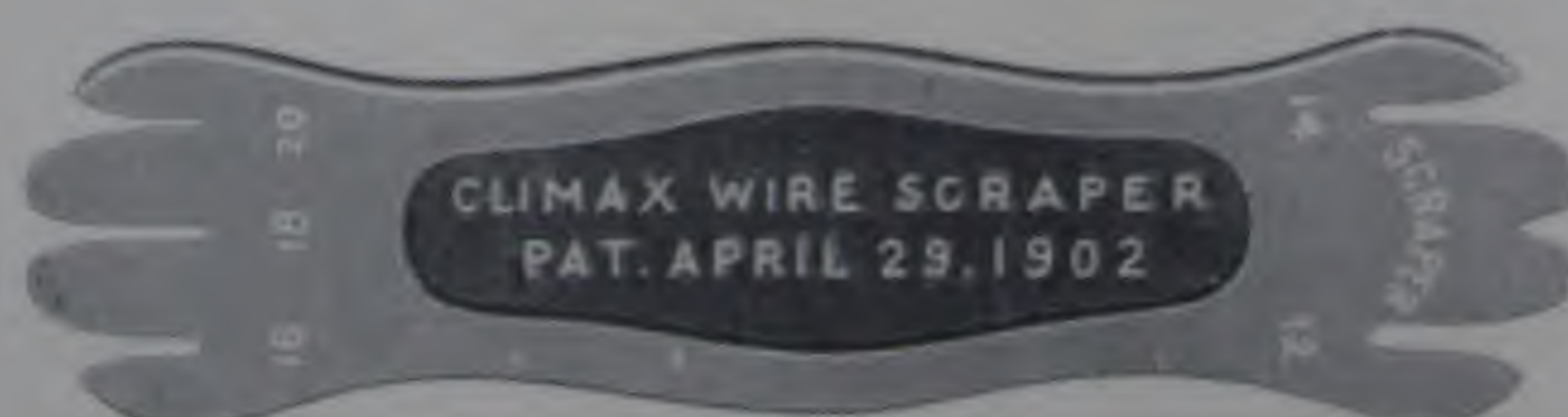
For Battery circuits, 0 to 50 volts	\$1.50
" Electric light circuits, 50 to 600 volts	1.50

### Wire Cleaner



Each	\$0.70
------	--------

### Cord Cleaner



Each	\$1.00
------	--------



## Firepots



No. 1

Large size . . . \$12.00



No. 5

Medium size . . . \$9.00



No. 6

Small size . . . \$8.00

## Ladles and Soldering Pots



No. 20

Each . . . \$6.50



2 1/2" ladle, \$0.30	3 1/2" pot, \$0.50
3" " .30	5" " .50
4" " .40	6" " .70



No. 10

Each . . . \$6.50

## Torches



No. 31

Quart size . . . \$6.50



No. 32

Quart size with soldering  
iron attachment . . . \$7.00

No. 37

Pint size . . . \$5.50



## Torches



No. 38

Pint size with soldering  
iron attachment . \$6.00



No. 8

Pint size, self-blowing \$5.00



No. 47

Pint size . \$6.50



No. 33

Swivel burner . \$5.00



No. 10

Double Jet Alcohol  
Blow Torch . \$9.00



No. 14

Brass,  $1\frac{3}{4} \times 6\frac{1}{2}$ " . \$2.80  
Nickel,  $1\frac{3}{4} \times 6\frac{1}{2}$ " . 3.00



No. 10

$1\frac{3}{4} \times 6$ " . \$2.50



No. 21

$\frac{3}{4} \times 5$ " . \$1.00

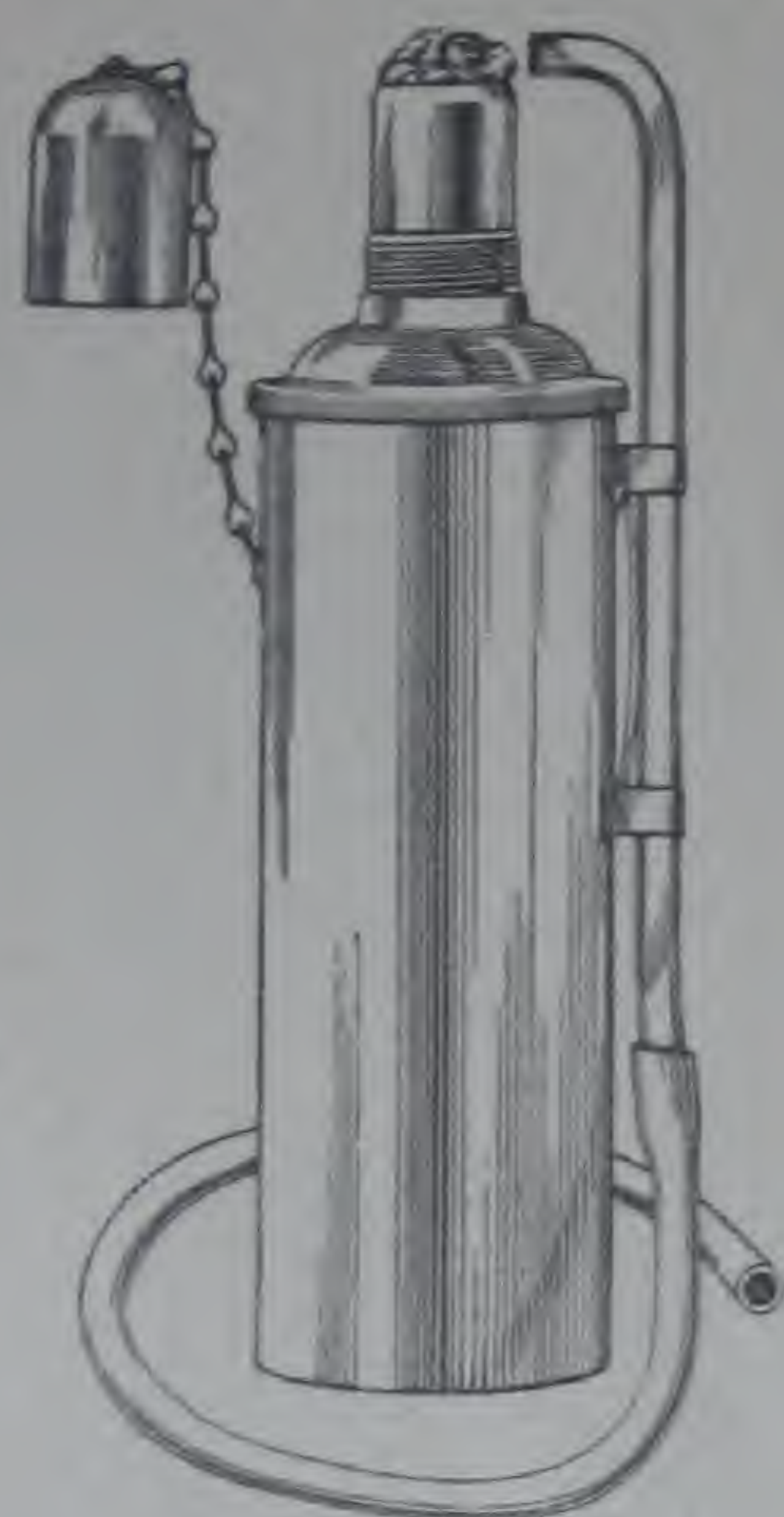


No. 11

$\frac{7}{8} \times 6$ " . \$1.50

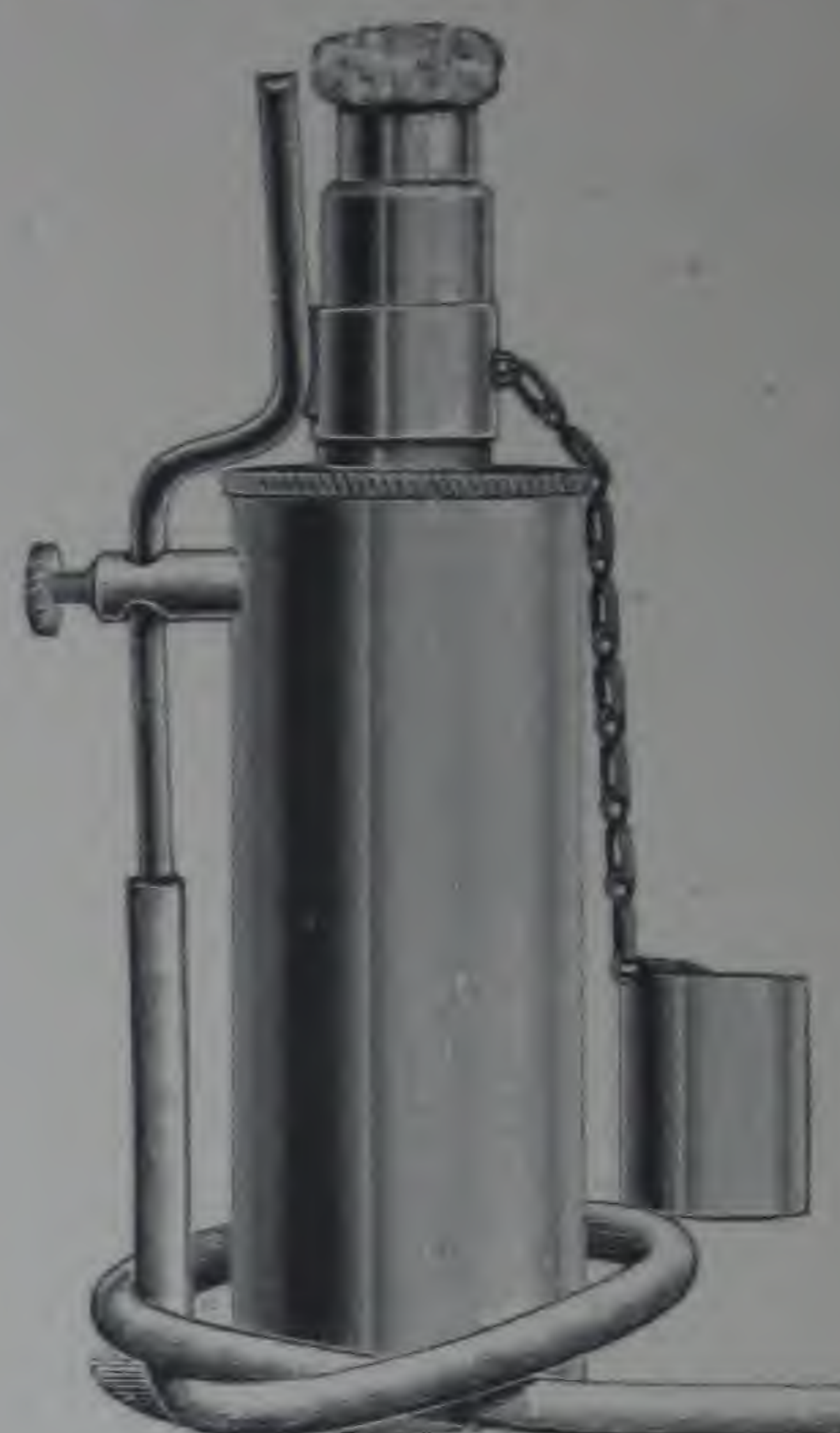


## Roberts Alcohol Torch



Each . . . . . \$2.50

## Victor Alcohol Torch



Each . . . . . \$2.50

## Baby Gasoline Torch



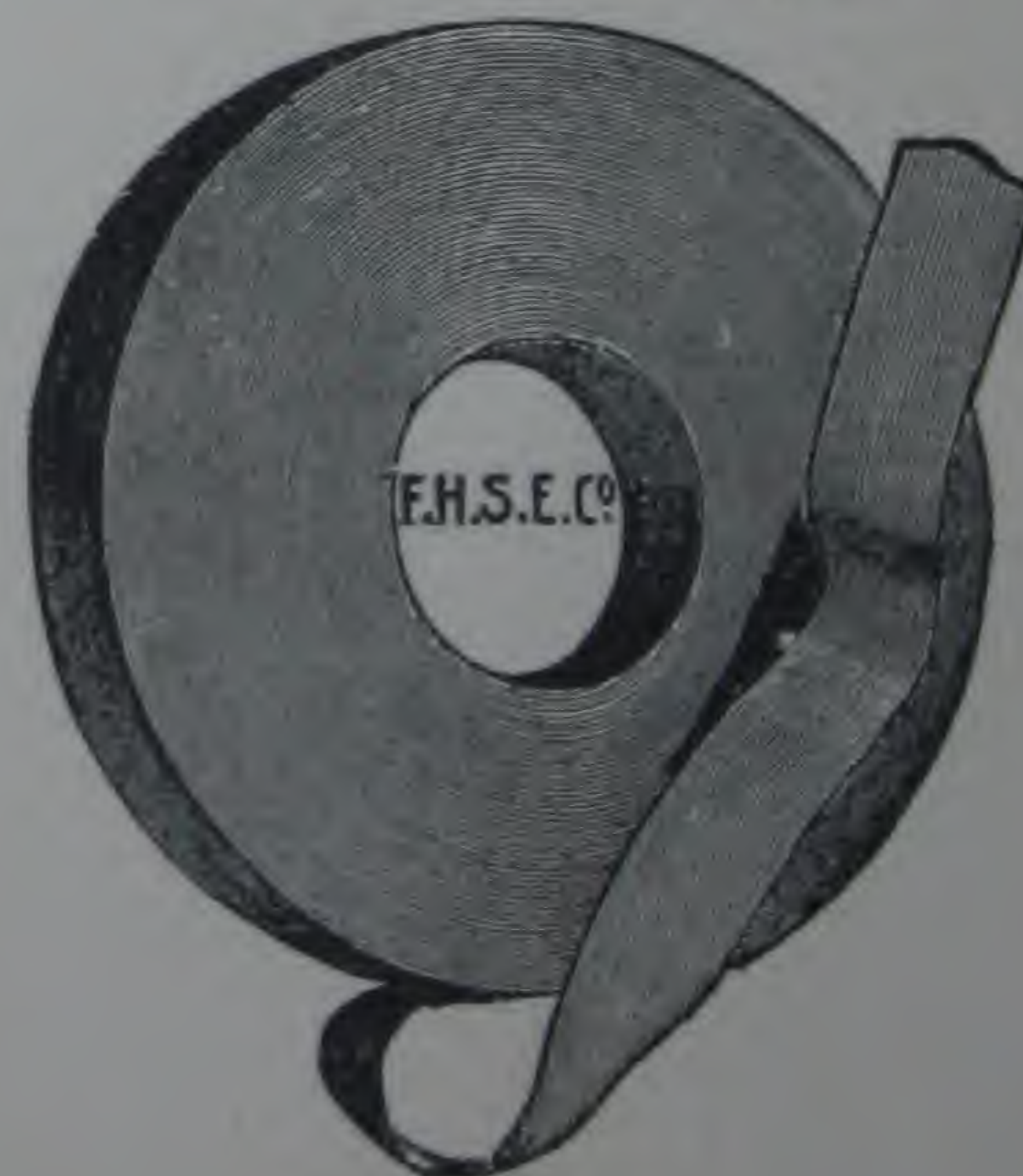
Self-blower  
Each . . . . . \$2.50

## Excelsior Soldering Copper



For 12, 14 and 16 wire . . . . . \$3.00  
 " 9, 12 " 14 " . . . . . 3.50  
 " 4, 6 " 8 " . . . . . 4.50

## Insulating Tapes



## Chatterton Compound

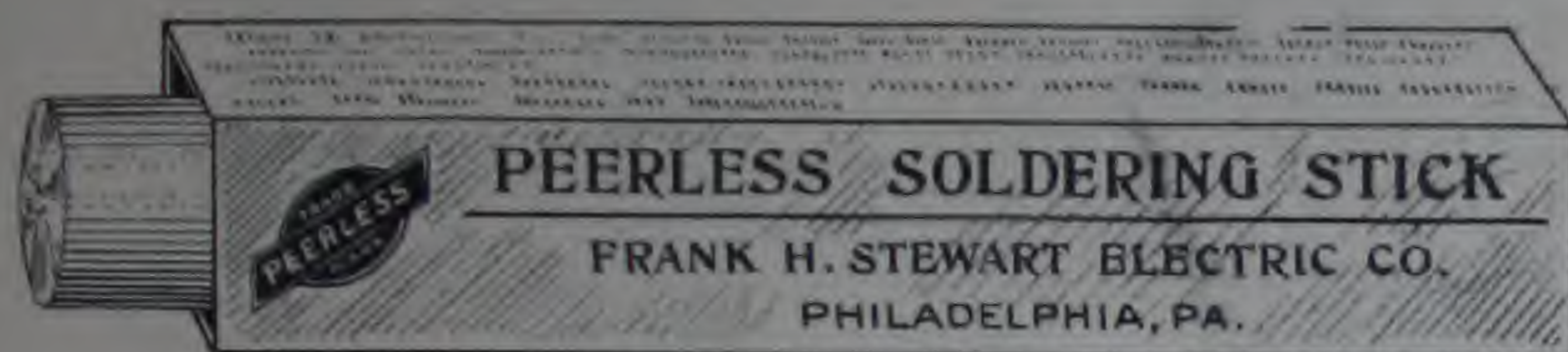


Per lb. . . . . \$1.20

Peerless . (Standard)	Per lb.	Plain Linen, 1/4"	Gross yds.
Manson . . . . .	\$0.70		\$1.44
Okonite . . . . .	1.10		Per lb.
Grimshaw (Black)	1.70	Weather-proof	\$1.00
" (White)	1.40	Armature (Adhesive)	1.50
	1.30		



## Soldering Sticks



Peerless (Standard)	\$0.22 each
Allen	.24 "
Highland	.24 "

## Soldering Paste



Peerless, 4 oz. cans,	.	.	.	\$0.22
Allen, 2 " "	.	.	.	.24
Burnby, 2 " "	.	.	.	.22

## Soldering Salts



1/2 lb. bottle . . . . .	\$0.50 each
--------------------------	-------------

## Highland Soldering Paste



2 oz. cans	.	.	.	.	\$0.24 each
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## Bar Solder



Per lb. . . . .	\$0.50
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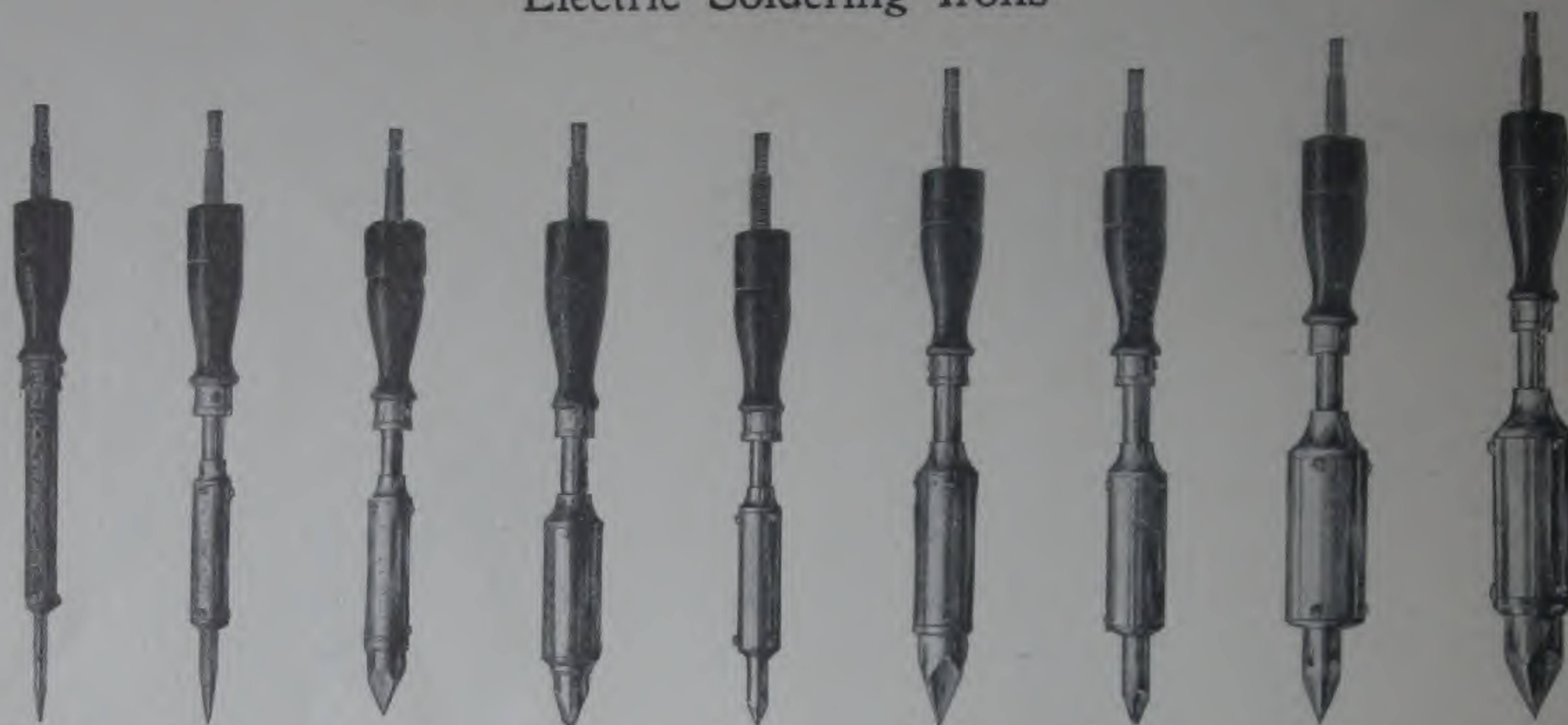
## Wire Solder



Per lb. . . . .	\$0.48
Rosin Core, per lb. . . . .	.70



## Electric Soldering Irons



No. 8

No. 11

No. 10

No. 20

No. 21

No. 30

No. 31

No. 32

No. 40

The No. 8 and No. 11 irons are known as telephone irons for switchboard work. They are also largely used in factories on various small parts and connections. A tip can be used that will extend four or five inches beyond the end of the iron, and can be forged into any angle desired.

No. 10. For small light work, such as soldering together small brass parts, connections, etc.

No. 20. For all around light work; it is also used in lead glazing, by electric wiremen, etc.

No. 21. For light constant work where a hotter iron than No. 11 is required.

No. 30. Very satisfactory for all around work. Heavy enough to do any ordinary soldering, and not too heavy for the lighter work.

No. 31. Good hot iron for light work, and may be used to advantage when anchored to the bench, as it leaves both hands free to handle the work, such as lamp bases, etc.

No. 32. Adapted for light tinsmith work, and for model work, light patterns, etc.

No. 40. Adapted for medium and heavy work of all kinds, excepting heavy tinsmith work.

To determine whether an iron is suited for your work, consider both the tip diameter and the weight.

Soldering irons vary in length from ten to fifteen inches.

All irons are finished in nickel, have polished hardwood handles, and are furnished complete with tip, six feet of cord, but no plug. If plug is to be included, add 30c to list.

Made for various intermediate voltages up to 250.

Voltage desired must be specified in ordering.

Cat. No.	Diam. Tip.	Weight.	Max. Watt Consum.	Price.
8	$\frac{5}{16}$	10 oz.	90	\$6.00
11	$\frac{7}{16}$	15 oz.	95	6.00
10	$\frac{7}{8}$	1 lb.	100	6.00
20	1	1½ lb.	150	6.00
21	$\frac{17}{32}$	1½ lb.	130	6.00
30	1¼	2½ lb.	300	7.00
31	$\frac{11}{16}$	2 lb.	240	7.00
32	1	1¾ lb.	270	7.00
40	1⅝	4¼ lb.	425	10.00

All irons listed above have removable and replaceable copper tips.

## Copper Tips Only

We list below a full line of standard copper tips. The Nos. 10, 20, 30, 32 and 40 are tempered cast tips. The others are made of drawn rod, and are of the same size throughout so that they may be extended or pulled out as the ends wear away.

No. 10, Pointed or Chisel, \$1.00

No. 20, Pointed or Chisel, 1.10

No. 30, Pointed or Chisel, 1.50

No. 32, Pointed or Chisel, \$1.10

No. 40, Pointed or Chisel, 2.00

No. 8, Chisel . . . . .35

No. 11, Chisel . . . . .\$0.35

No. 21, Pointed . . . . .45

No. 31, Pointed . . . . .50

## Soldering Coppers



When ordering specify weight.

Per lb.

\$0.75

## Ritter Soldering Copper



Each

\$1.60



## Flat Nose Gas Pipe and Side Cutting Pliers



No. 325

Plain, 5 1/2"	\$1.25
Nickeled	1.75

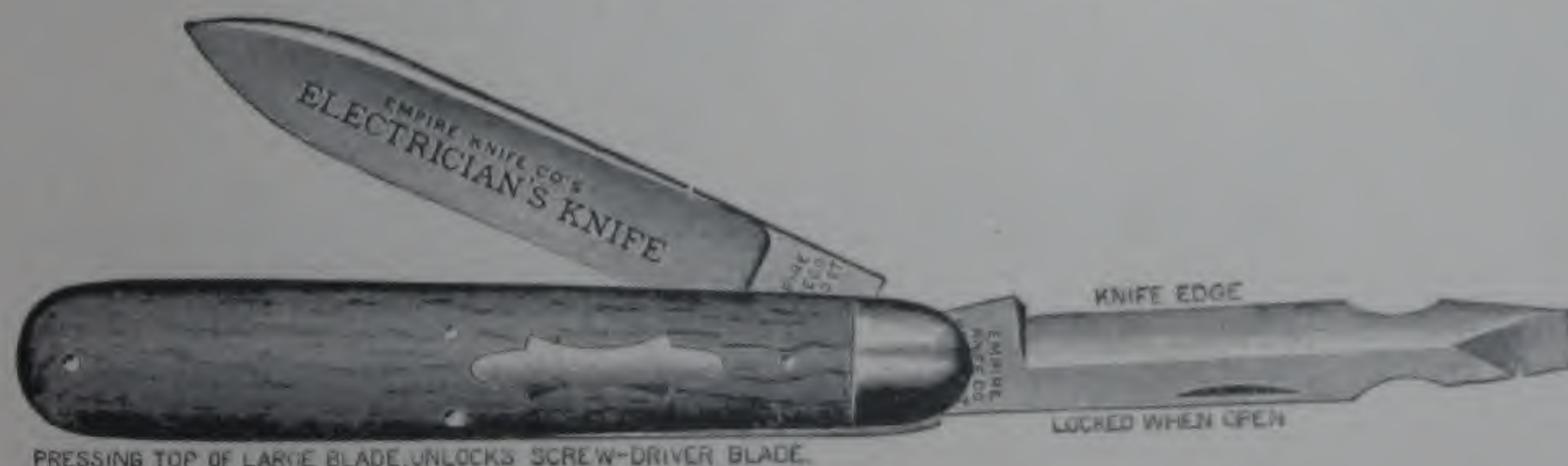
## Wiremen's Snips



No. 97

No. 97, 5 3/4"	\$1.00
" 697, 5 3/4" Notched Blade	1.20

## Electrician's Combination Knife and Screw Driver



PRESSING TOP OF LARGE BLADE, UNLOCKS SCREW-DRIVER BLADE.

No. 372

Each (two blades), \$1.00

## Electrician's Combination Knife and Screw Driver

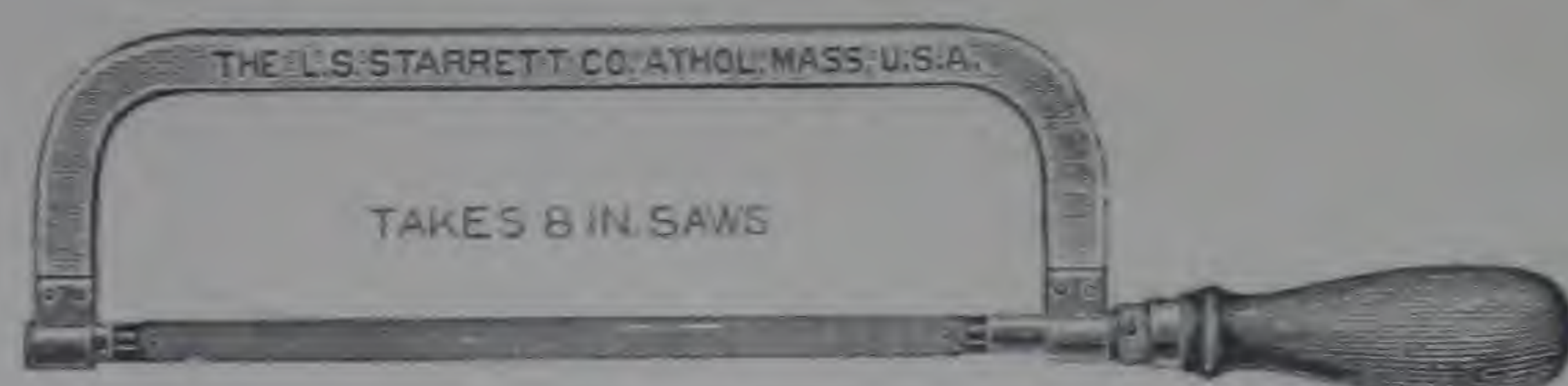


No. 371

Each (one blade), \$0.70



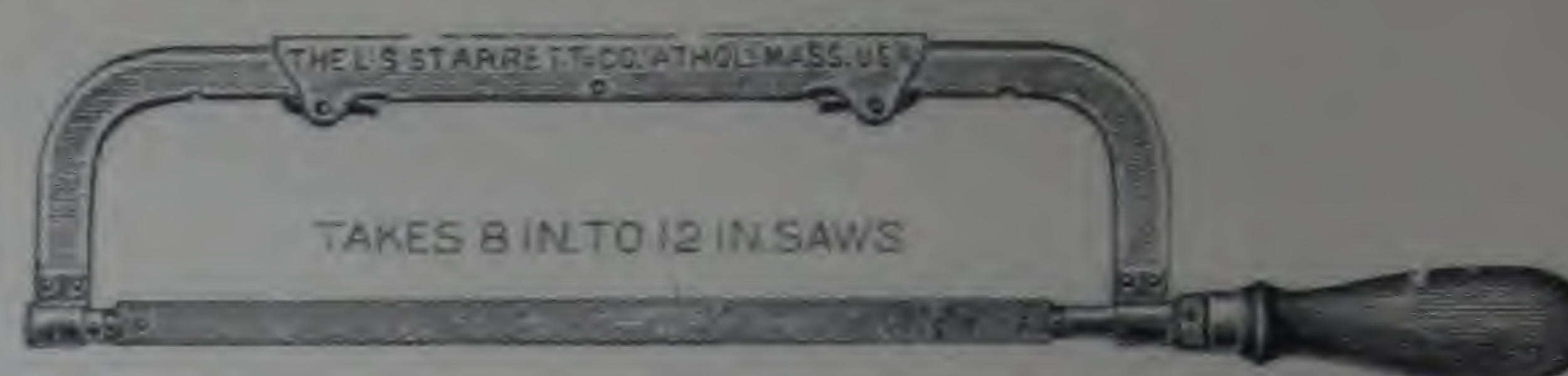
## Hack Saw Frames



Solid

No. 141

\$1.40

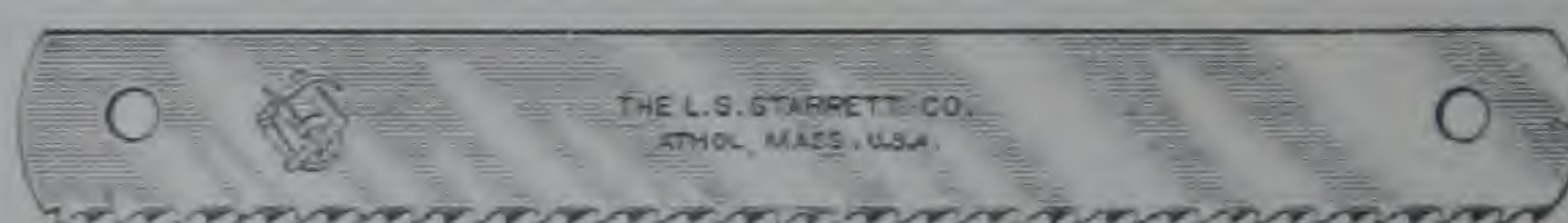


Adjustable

No. 146

\$2.00

## Hack Saw Blades



8", per dozen	\$1.30
9", " "	1.40
10", " "	1.70
12", " "	2.10

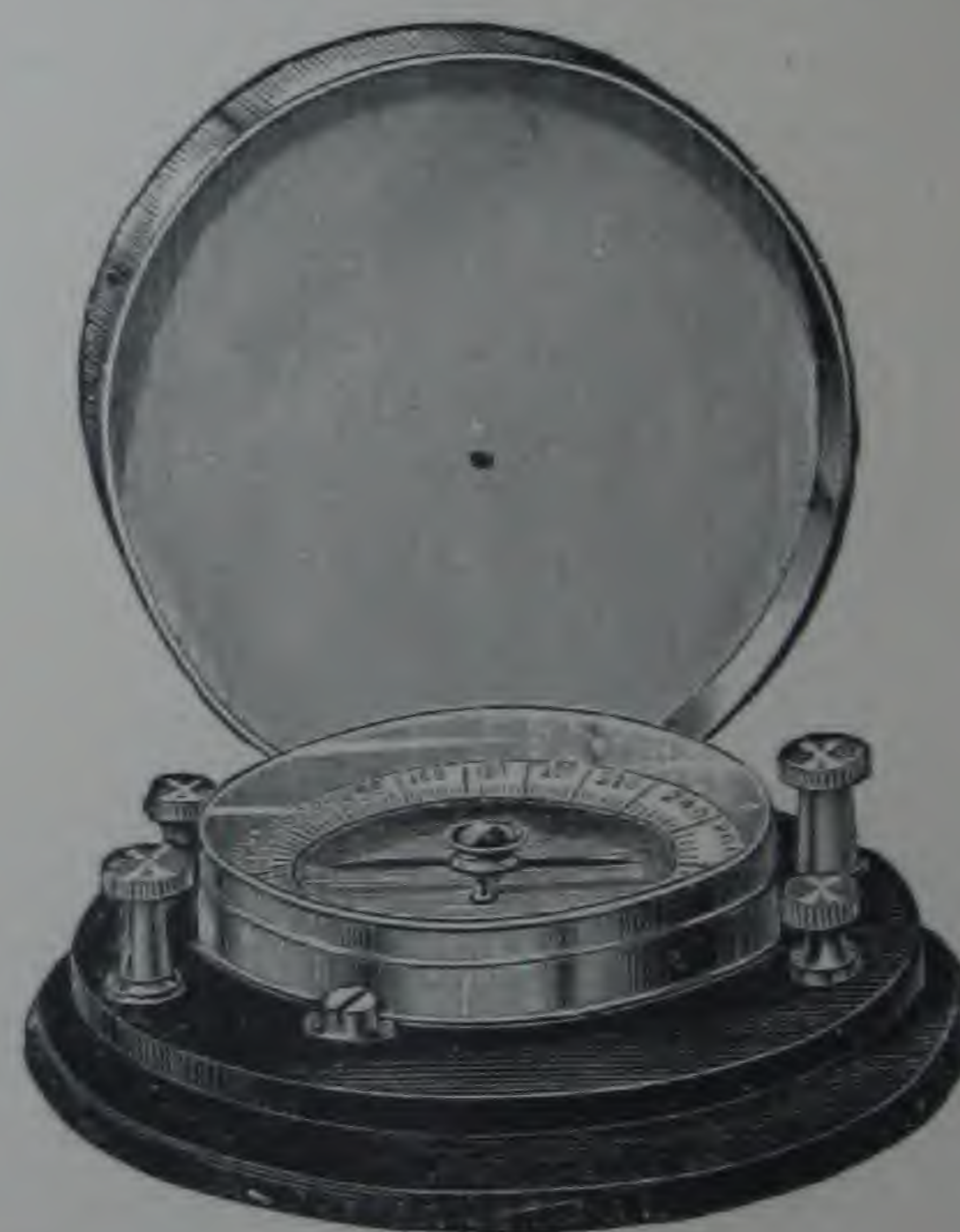
## Steel Measuring Tape



50 feet in Leather Case

\$6.70

## Pocket Galvanometer



Each

\$8.00

## Mica Insulated Screw Drivers



2 1/2"	\$1.30
3 1/2"	1.40
4"	1.50
5"	2.00
6"	2.25

Pocket Screw Driver  
(Screw Driver and Brad Awl)

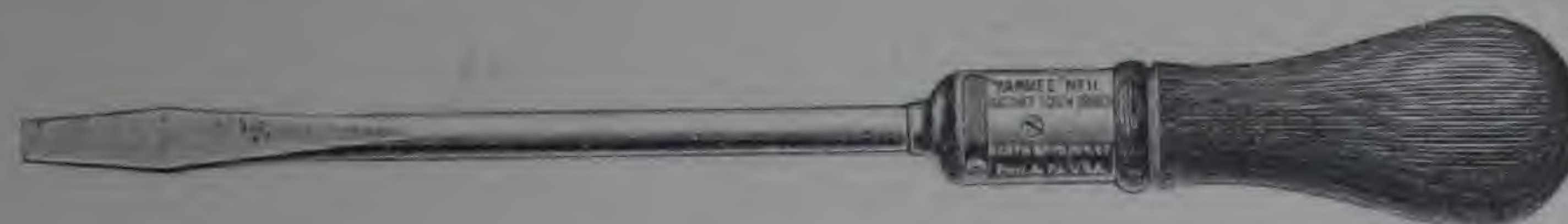
Each

\$0.60





No. 10



No. 11



No. 15



No. 41



No. 30

## Yankee Screw Drivers

	No. 10.	No. 11.	No. 15.
2 in.,	\$0.50	\$0.50	\$0.55
3 "	.60	.60	.65
4 "	.70	.70	.75
5 "	.80	.80	.85
6 "	.90	.90	
8 "	1.00	1.00	
10 "	1.10	1.10	
12 "	1.20	1.20	

## Lock Ferrule Screw Driver

2 in.	3 in.	4 in.	5 in.
\$0.25	\$0.30	\$0.35	\$0.42
6 in.	8 in.	10 in.	
\$0.50	\$0.66	\$0.84	

## Cabinet Screw Driver

2½ in.	3½ in.	4½ in.
\$0.25	\$0.30	\$0.38
5½ in.	6½ in.	8½ in.
\$0.46	\$0.55	\$0.66

Assembler's Screw Driver  
With Swivel Button

Each	\$0.80
------	--------

Yankee Automatic Drill  
No. 41

Each tool contains eight drills ranging from  $\frac{1}{8}$  in. to  $\frac{1}{4}$  in.

Each	\$2.25
Extra Drill Points, per doz.	1.00

Yankee Spiral Ratchet  
Screw Driver

No. 30

Length 13½ in. closed. 19¼ in. extended.	
Each	\$2.30

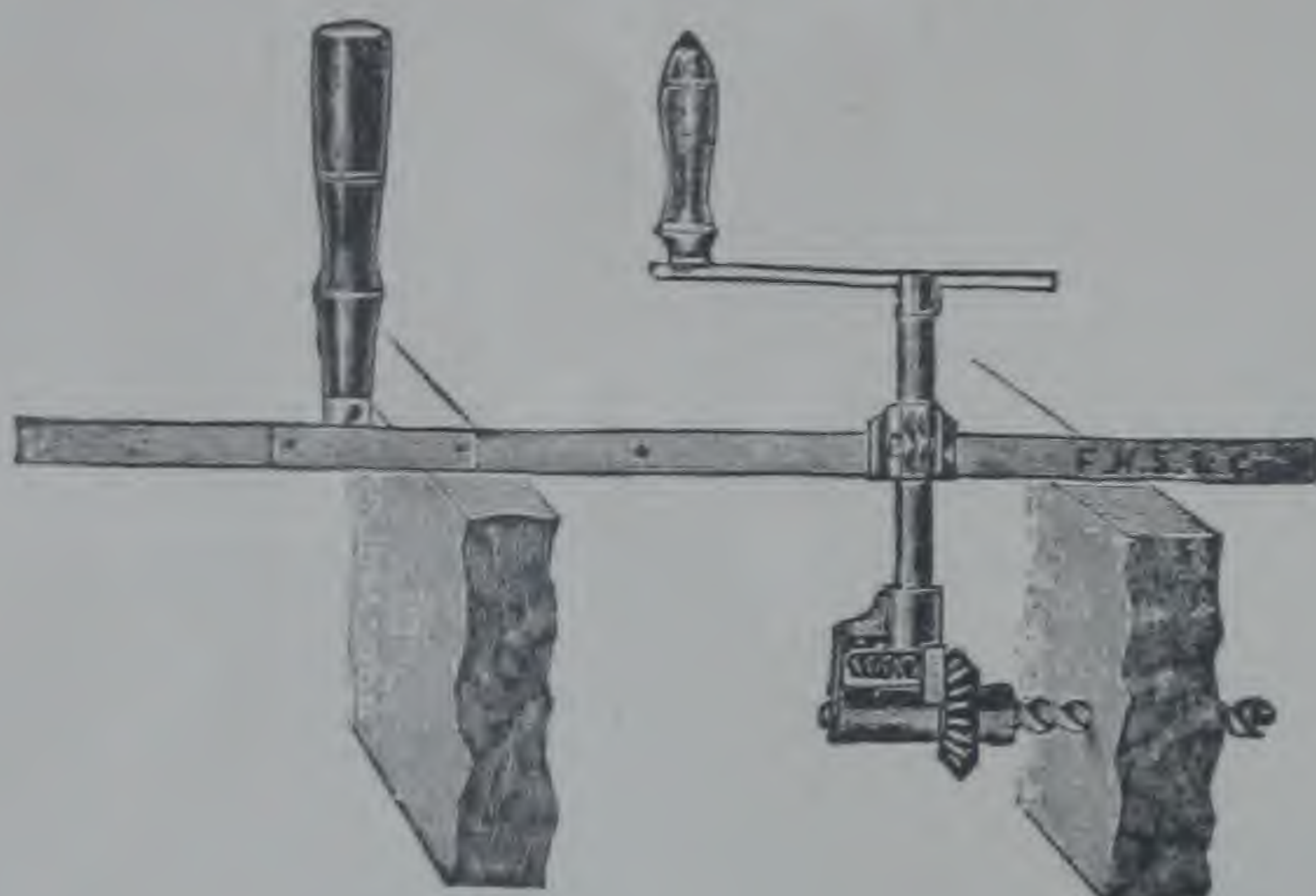


## Ratchet Brace



8 in. sweep . . . . .	\$3.00
10 " " . . . . .	3.50

## Anthony Boring Tool



Without Bit . . . . .	\$10.00
$10/16$ in. Bits . . . . .	1.40
$11/16$ " " . . . . .	1.50
$3/4$ " " . . . . .	1.60

## Anthony Chucks

To fit square end bits . . . . .	\$1.00
----------------------------------	--------

## Star Drills

(Solid Steel)



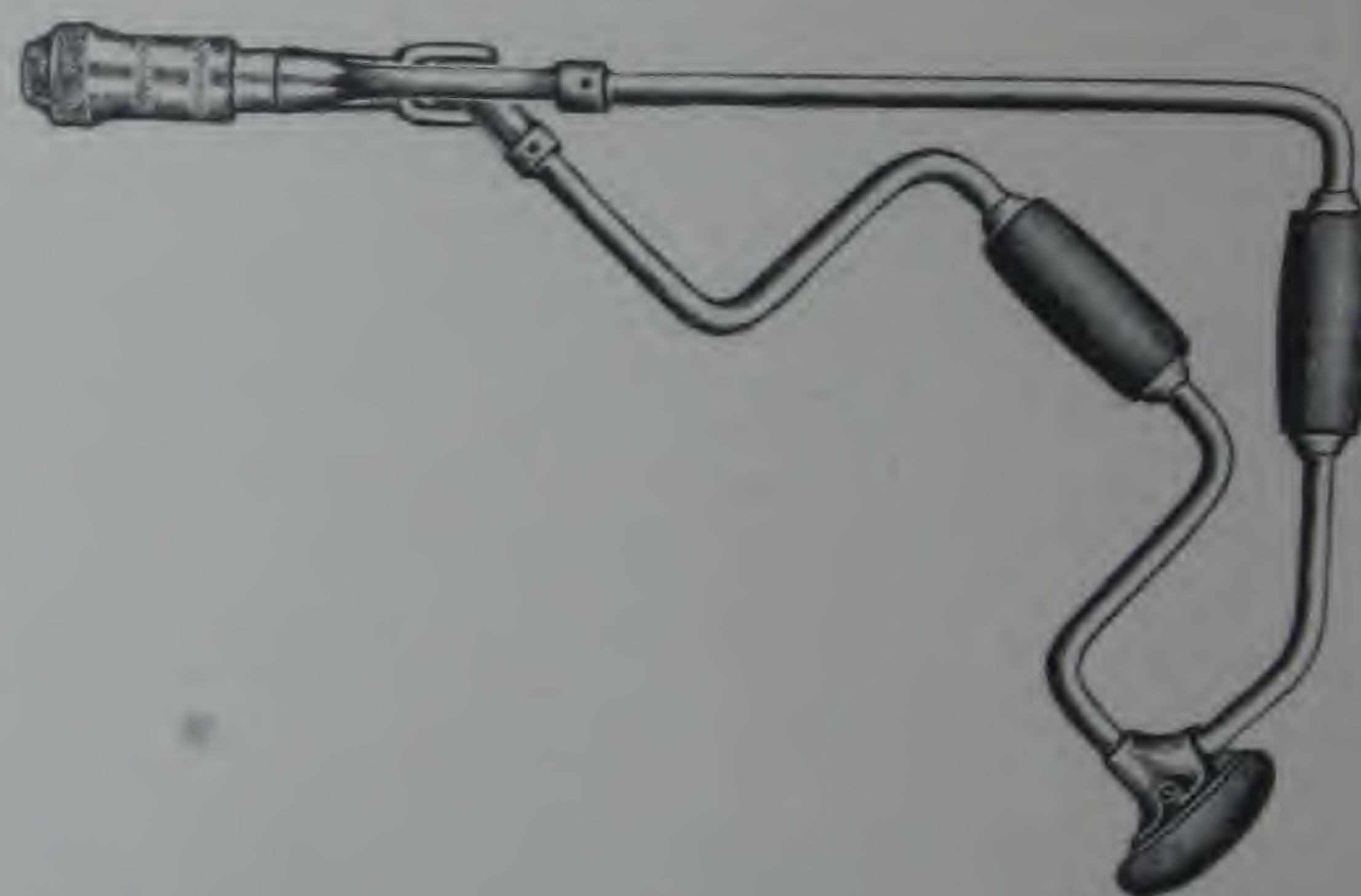
26 in. long for $5/8$ in. hole . . . . .	\$2.50
26 " " " $7/8$ " " . . . . .	3.00
26 " " " 1 " " . . . . .	3.50

## No. 2 Corner Brace



Each . . . . .	\$4.60
----------------	--------

## No. 1 Corner Brace



8 in. sweep . . . . .	\$4.80
10 " " . . . . .	5.70

## Hollow Brick Drills



26 in. long for $5/8$ in. hole . . . . .	\$1.20
26 " " " $3/4$ " " . . . . .	1.50



## Electrician's Drills



	12"	18"	24"	30"	36"
1/4"	\$0.42	\$0.58	\$0.75	\$0.92	\$1.08
3/8"	.50	.67	.83	1.00	1.08
1/2"	.67	.83	1.00	1.17	1.25
5/8"	.83	1.00	1.17	1.25	1.33
3/4"	1.00	1.17	1.33	1.42	1.50

## Drill Handles



Each . . . . . \$0.30

## No. 1 Bit Extension



16, 18 and 20" . . . \$1.70

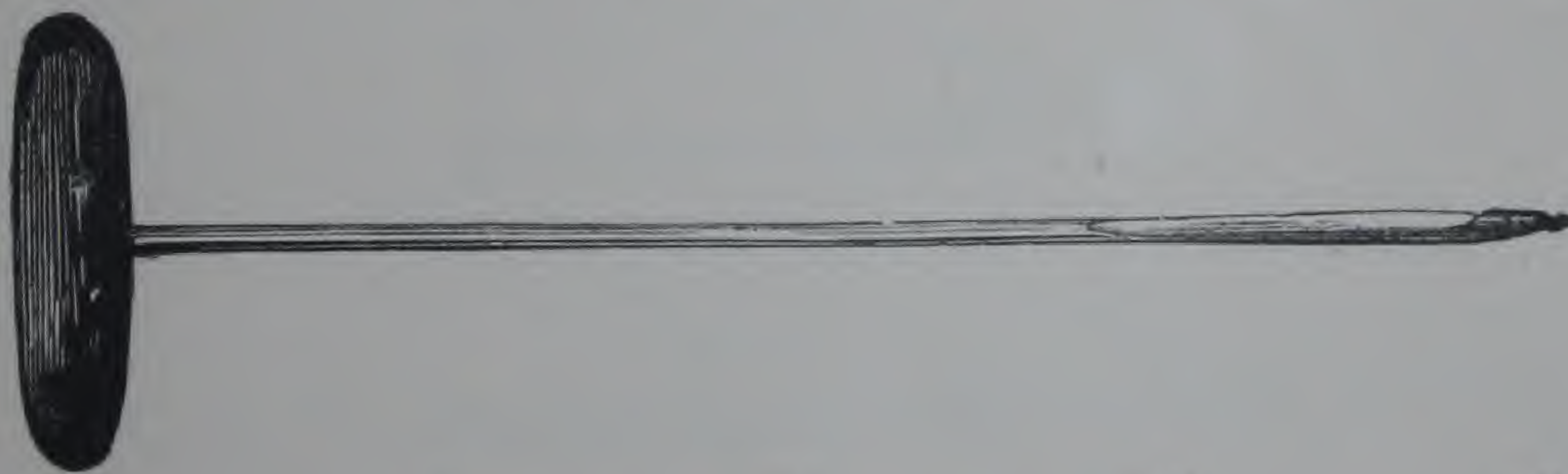
## No. 2 Bit Extension

Will follow 5/8" Bit



12, 18, 24" . . . . . \$1.70

## Bell Hangers' Gimlets



	12"	18"	24"	30"
1/4"	\$0.50	\$0.70	\$0.90	\$1.00

## Pugh Auger Bits



9 inches long, per dozen

1/4"	1/8"	3/8"	1/2"	5/8"	3/4"	1 1/8"	1 1/4"	1 1/2"	1 3/4"
\$4.50	\$4.50	\$4.50	\$4.50	\$5.76	\$6.48	\$7.20	\$7.92	\$8.64	\$10.08

Extra for longer bits : 18", \$0.36 ; 24", \$0.48 ; 30" and 36", \$0.56 each.



## Splicing Clamps

(Full Polished)



No. 6, for Nos. 0, 2 and 4 wire, length  $10\frac{1}{2}$  inches . . . . . \$3.00



No. 1, for Nos. 4, 6, 8 and 9 wire, length  $10\frac{1}{4}$  inches . . . . . \$3.00



No. 18, for Nos. 10 and 12 McIntire sleeves, length 7 inches . . . . . \$2.40



No. 8, for Nos. 12, 14 and 16 wire, length 7 inches . . . . . \$2.40



No. 8A, for Nos. 12 and 14 wire, 12 and 14 sleeves, length 7 inches . . . . . \$2.50



## Splicing Clamps

(Full Polished)



No. 19, for Nos. 6, 8, 10, 12 and 14 wire, 8, 10, 12 and 14 sleeves, length  $10\frac{1}{2}$  inches . . . \$3.00



No. 19A, for Nos. 8, 10, 12 and 14 wire, 10, 12 and 14 sleeves, length 9 inches . . . \$3.00



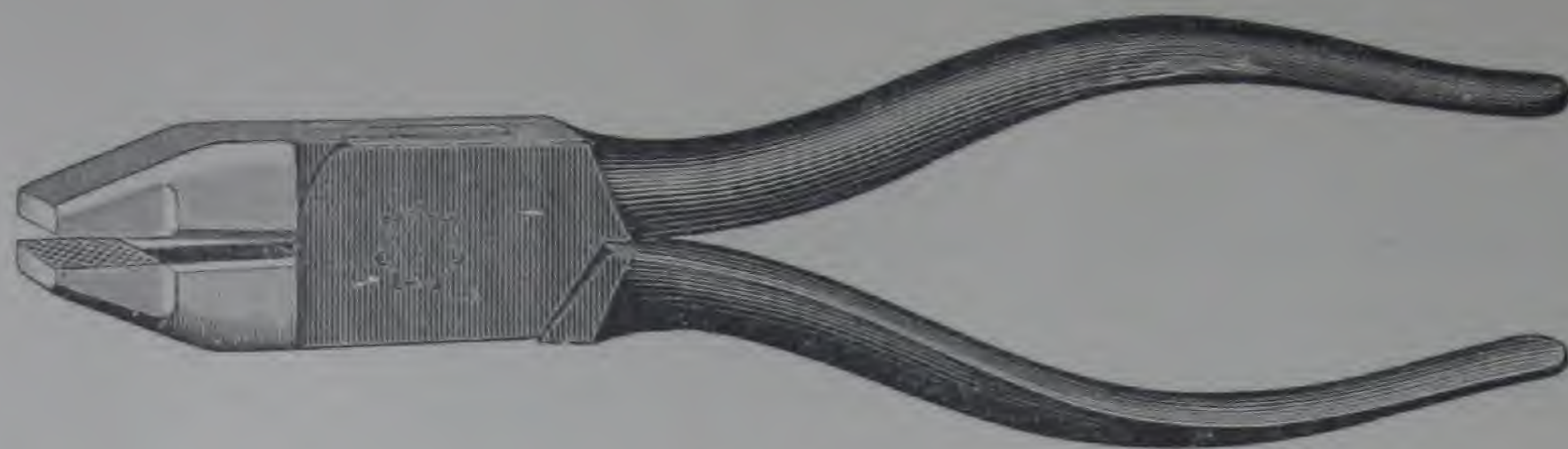
No. 11A, for Nos. 4, 6, 8 and 9 wire, 8 and 10 sleeves, length  $10\frac{1}{2}$  inches . . . \$3.00



No. 5, for No. 6 and small wires, length  $10\frac{1}{2}$  inches . . . \$4.00



## Pliers



No. 70

Standard Stub Pattern Pliers  
No. 70

	5 in.	6 in.	7 in.	8 in.
Plain,	\$1.40	\$1.60	\$1.80	\$2.20
Nickeled,	1.92	2.10	2.40	3.00

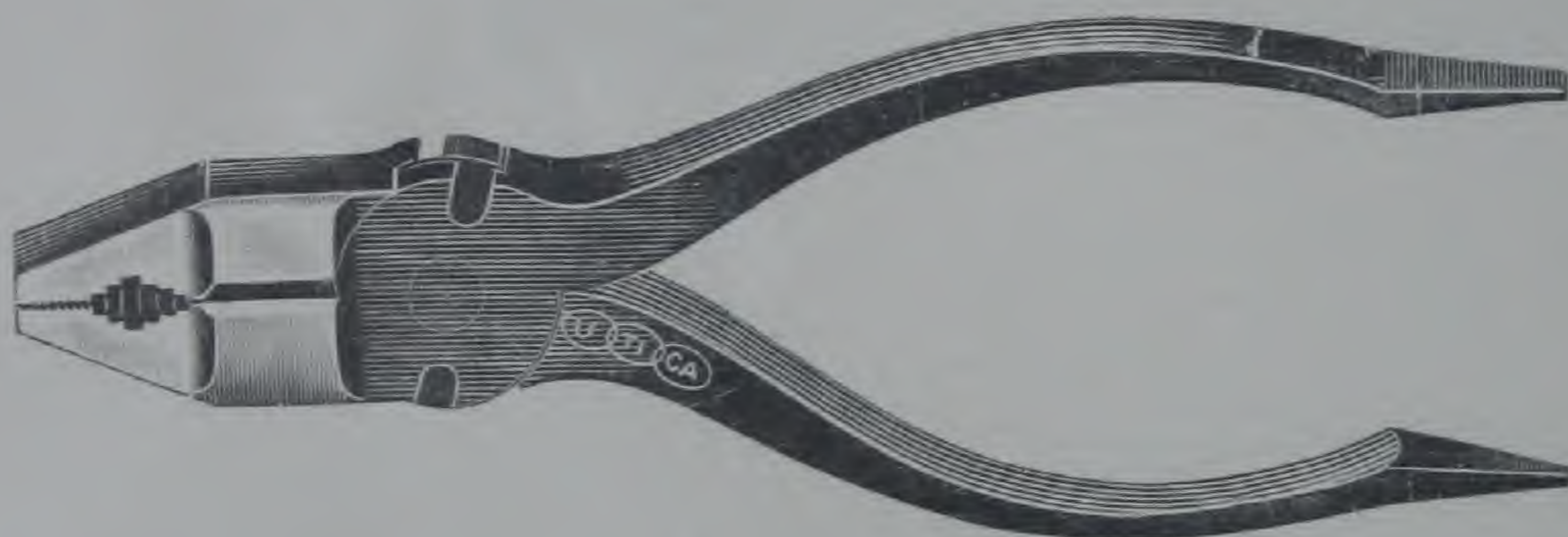
Forged from solid steel, with box joint and star rivet. Guaranteed equal to any pliers made.



No. 350

Side Cutting and Splicing Pliers  
No. 350

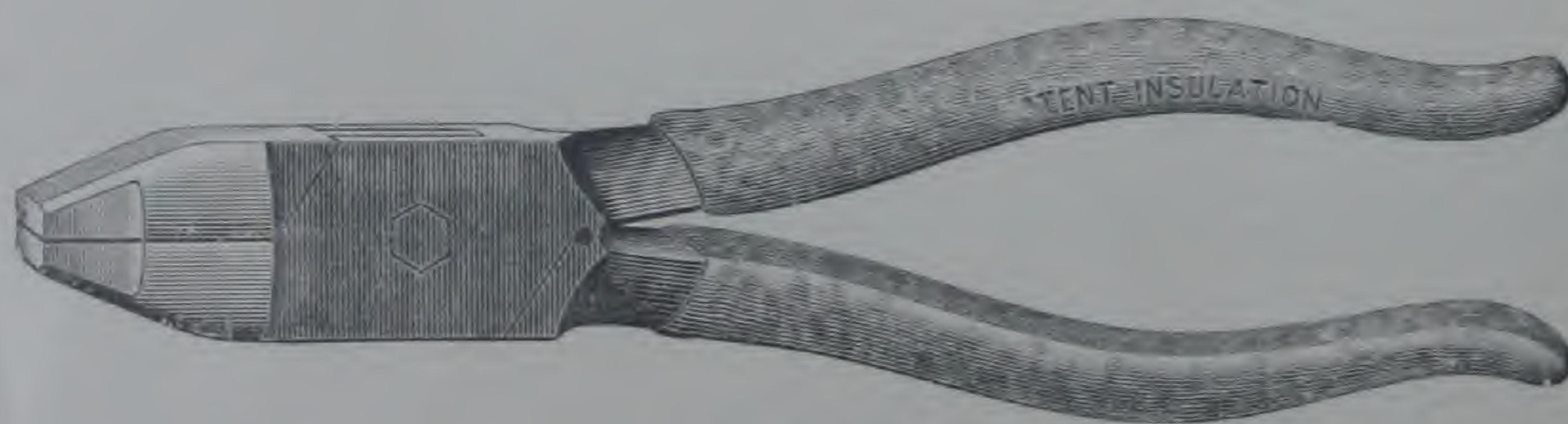
	6 in.	7 in.	8 in.
Plain,	\$1.50	\$1.90	\$2.10
Nickeled,	1.90	2.25	2.50



No. 700

Combination Gas and Side Cutting  
Pliers  
No. 700

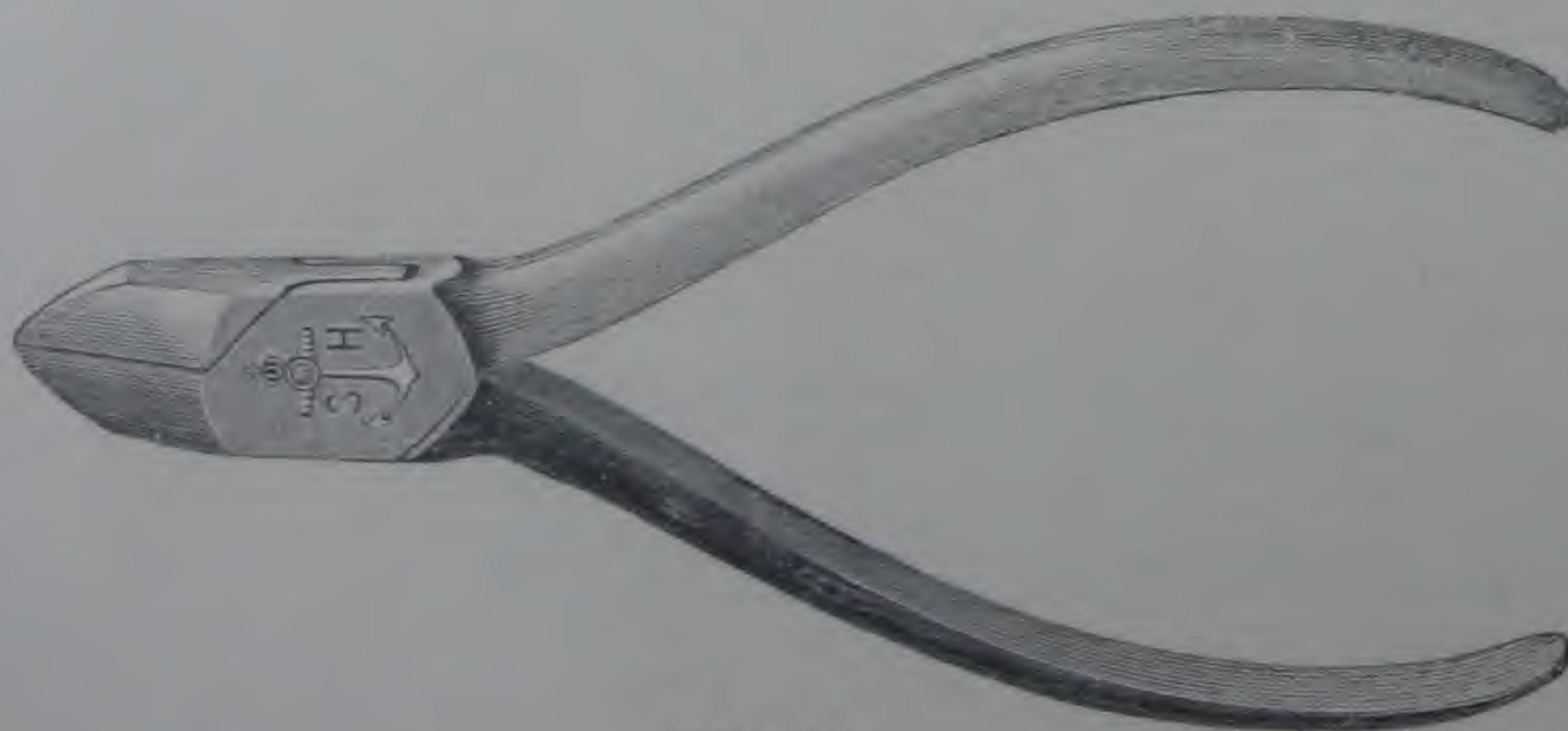
Plain,	7 in.	.	.	\$1.80
Nickeled,	7 "	.	.	2.70



No. 300

Mica Insulated Pliers  
No. 300

6 in.	.	.	.	\$3.25
7 "	.	.	.	4.00
8 "	.	.	.	4.75



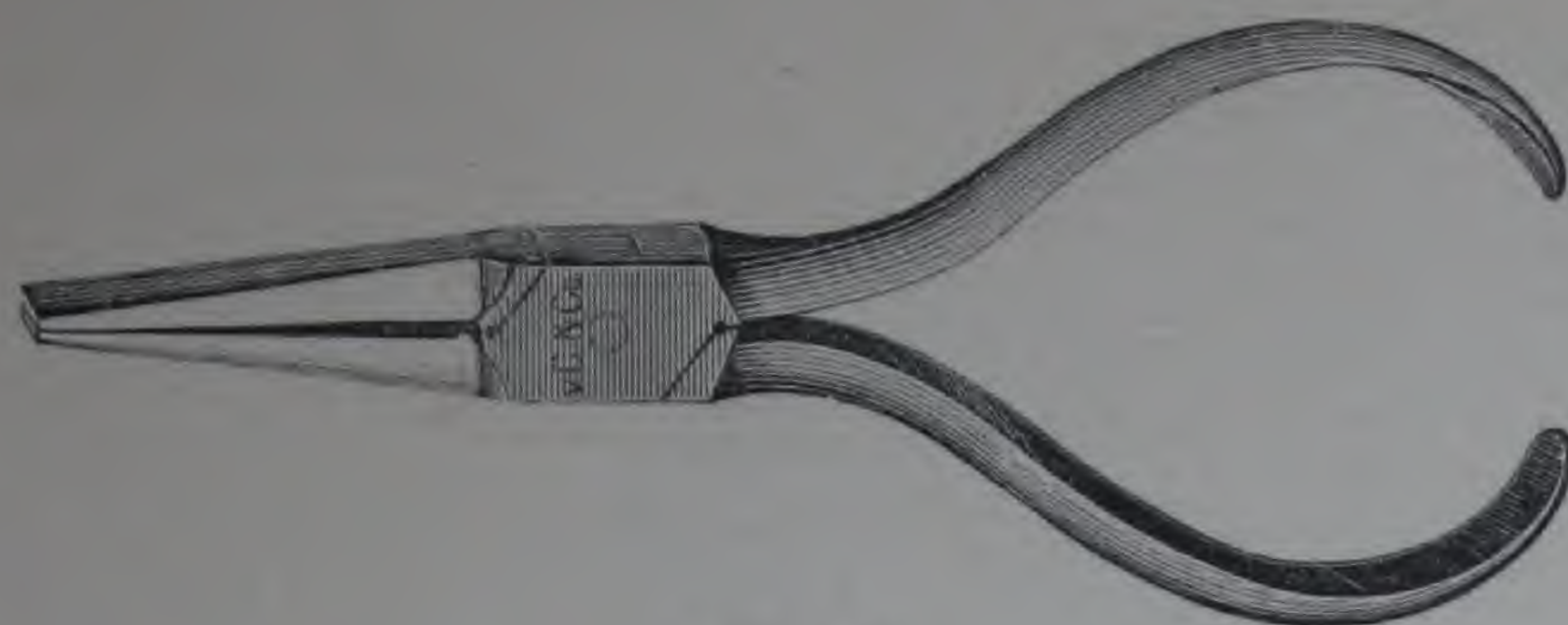
No. 342

Diagonal Pliers  
No. 342

4 1/2 in.	.	.	.	\$1.65
5 "	.	.	.	1.80
6 "	.	.	.	2.00



## Pliers



No. 20

Flat Nose Pliers  
No. 20, Plain

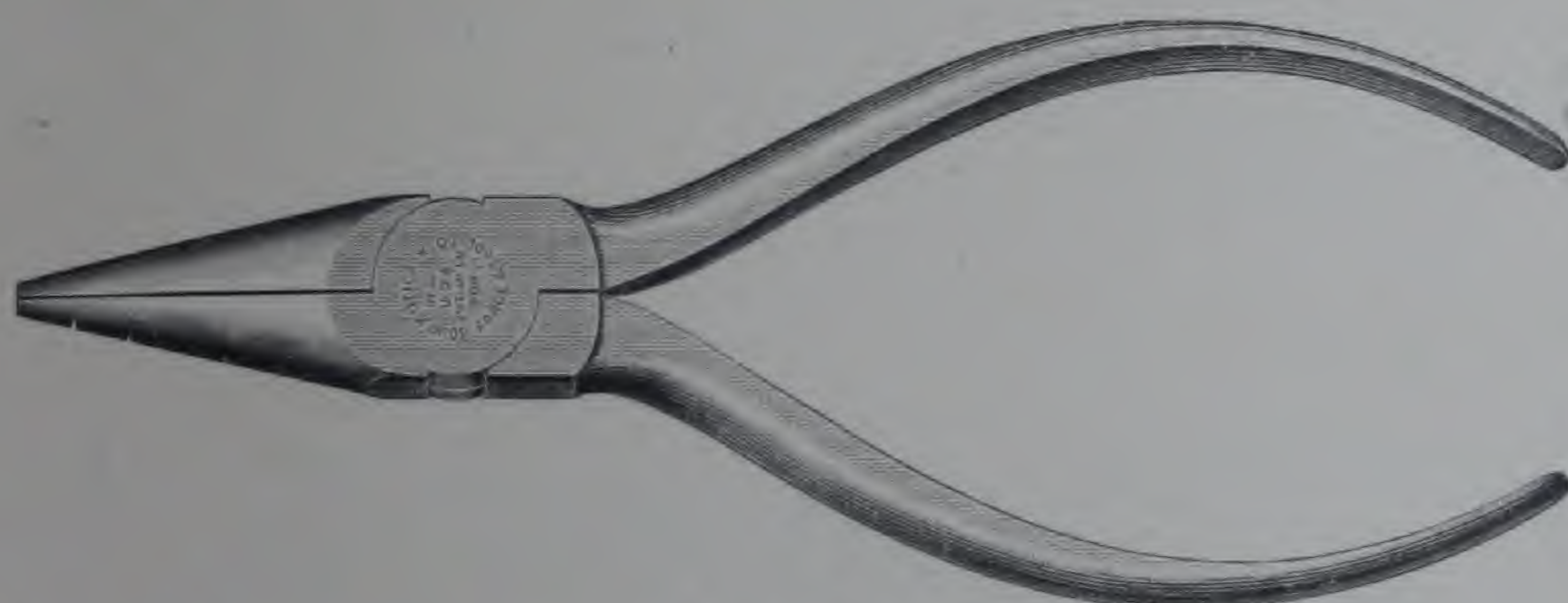
5 inch	.	.	.	.	\$0.60
6 "	.	.	.	.	.80



No. 777

Needle Nose Pliers  
No. 777

Plain,	5 1/2 inches	.	.	\$1.25
Nickeled,	5 1/2 "	.	.	1.75



No. 22

Chain Nose Pliers  
No. 22

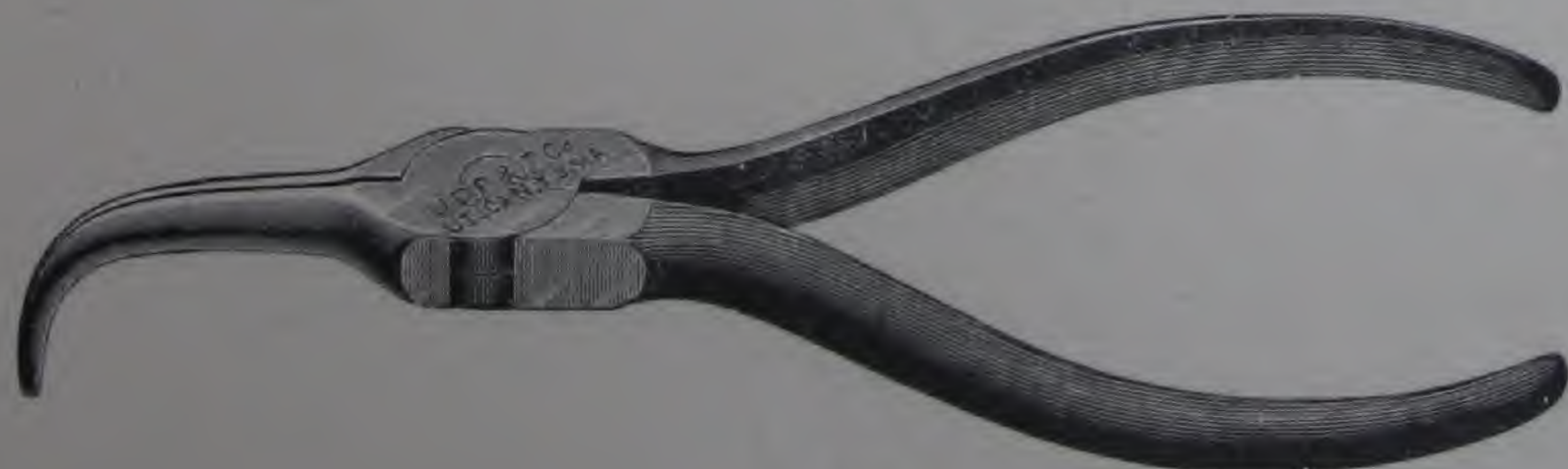
		5 in.	6 in.
Plain .	.	\$0.80	\$1.00
Nickeled .	.	1.10	1.30



No. 21

Round Nose Pliers  
No. 21

		5 in.	6 in.
Plain .	.	\$0.60	\$0.70
Nickeled .	.	1.00	1.30



No. 888

Curved Needle Nose Pliers  
No. 888

Plain,	5 1/2 inches	.	.	\$1.25
Nickeled,	5 1/2 "	.	.	1.75



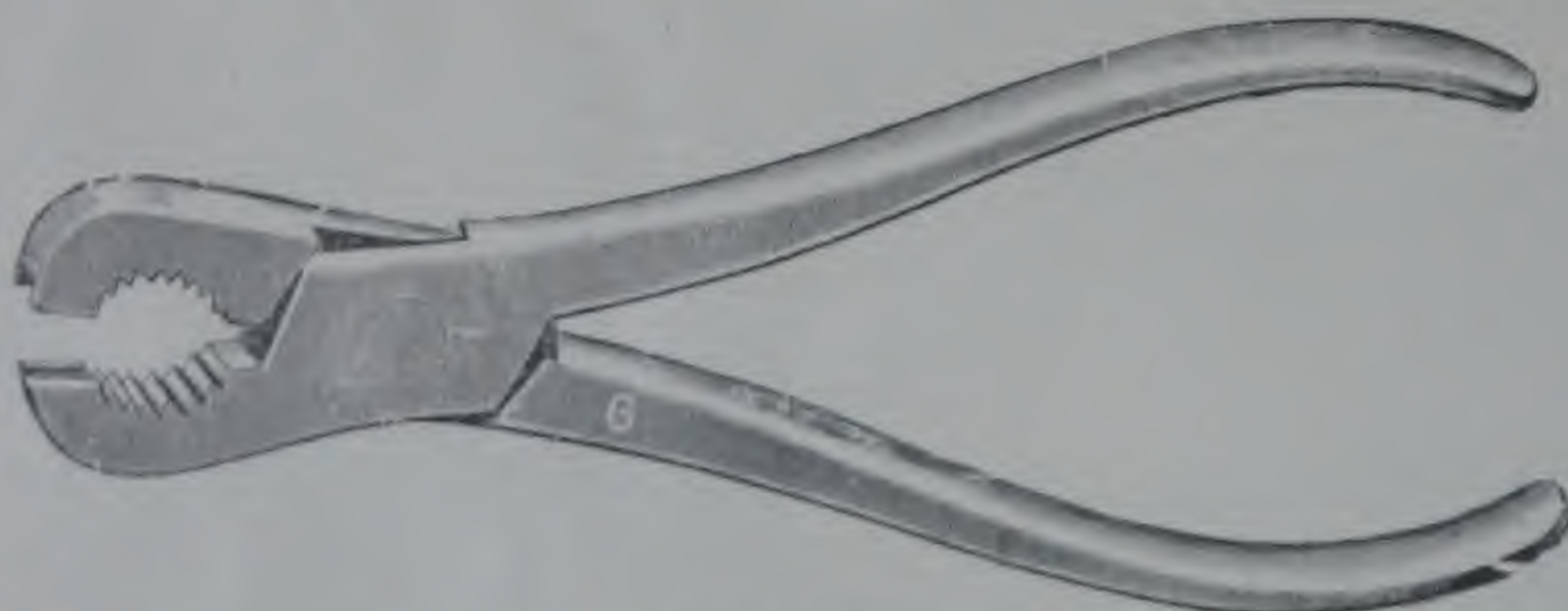
## Nippers, Pliers and Wrenches



No. 65

Jewelers' End Nippers  
No. 65

	4½ in.	5 in.
Plain . . . .	\$1.00	\$1.10
Nickeled . . . .	1.40	1.50



No. 90

Burner Pliers  
No. 90

	5 in.	6 in.
Plain . . . .	\$0.45	\$0.55



No. 650

Long Flat Nose Pliers  
No. 650

Plain, 5½ inches . . . .	\$1.20
Nickeled, 5½ " . . . .	1.70



Elgin Wrench	
Each . . . .	\$1.50



No. 95

B. and S. Pliers  
No. 95

Plain, 6 inches . . . .	\$1.00
Nickeled, 6 " . . . .	1.40







## Autocoils



No. 38, Single



No. 70, Double

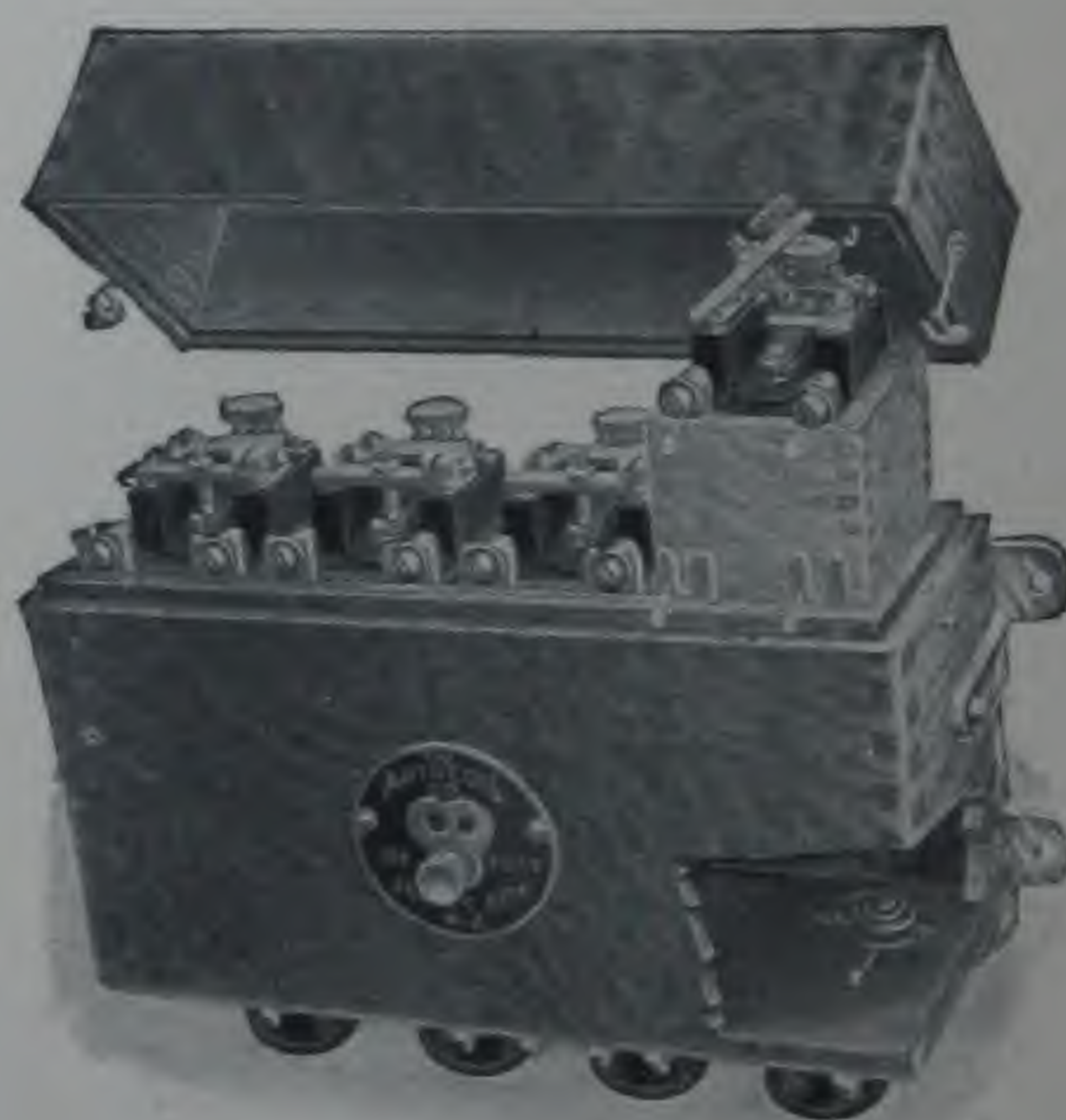
No. 166, Four Cylinder, Five Pocket  
With One Reserve Unit

No.		Each
38	Single Cylinder Dash Coil, with switch	\$9.45
70	Double " " " " " "	18.60
102	Three " " " " " "	26.48
134	Four " " " " " "	34.43
166	Four Cylinder (5 pocket) Dash Coil and One Reserve Unit, with switch	42.00
401	Six Cylinder Dash Coil, with switch	50.40

Above prices are for Mahogany or Oak Cases and with No. 2 Units

1	Wood Units, Glass Hard Iridium Contacts	7.20
2	" " Extra Large Platinum-Iridium Rivets	6.15
	Hard Rubber Units	Extra 1.50

If switch is not desired deduct \$1.20 from above prices.

No. 2, Wood Unit  
With Type A Compound VibratorNo. 134, Four Cylinder  
Showing Unit Construction

Numbers and prices given above are for the French Type Coils. The American Type Coil, which is better adapted for marine service, being somewhat larger and heavier, can be furnished at a slight increase in price.

Type A Compound Vibrator furnished unless otherwise ordered. Other styles are Type B, Single Spring; Type C, Fullman Hammer Blow; Type D, La Caste or Bow Spring.

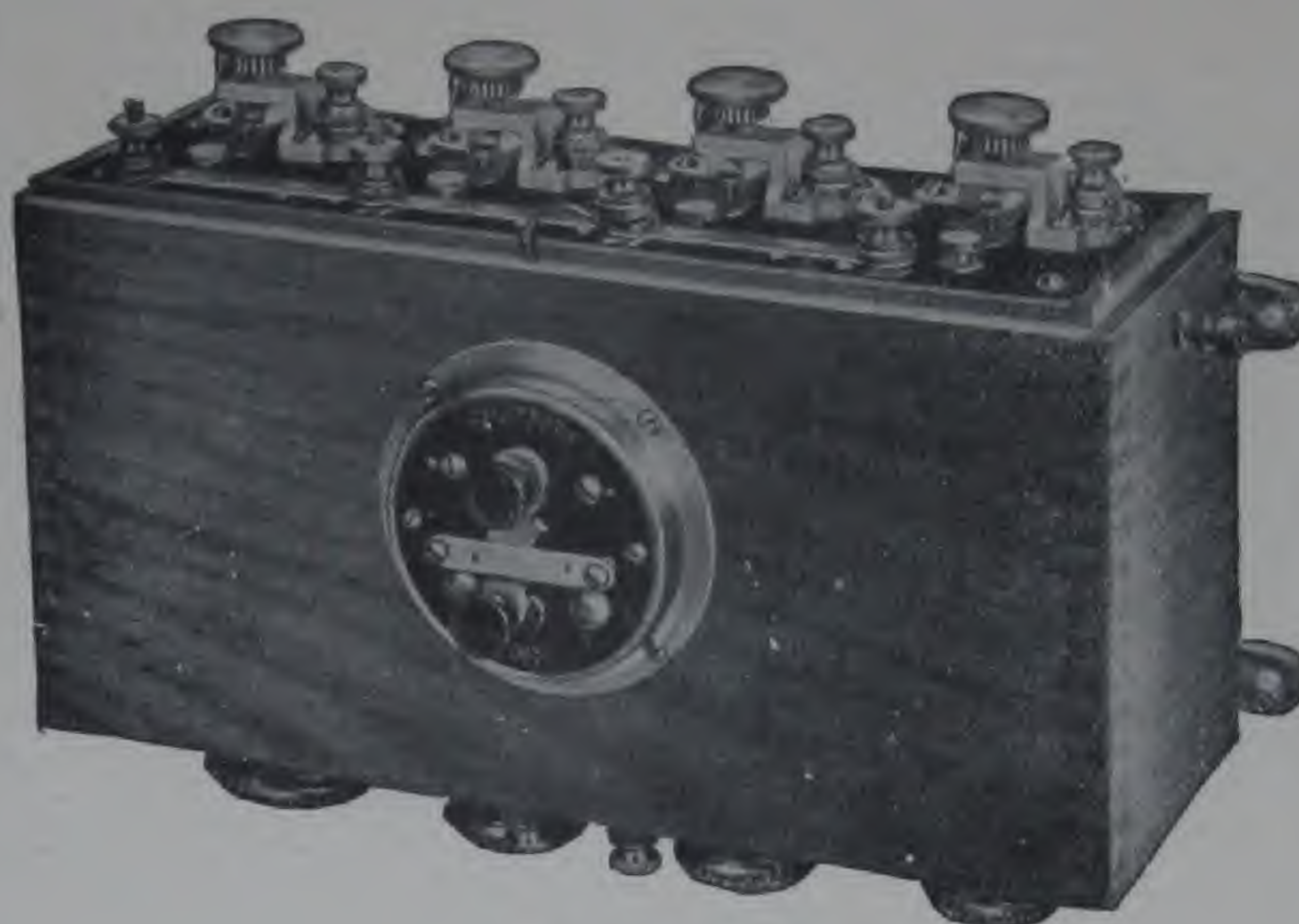
No. 38, Single Autocoil is advised for distributor service.



## Splitdorf Dash Coils

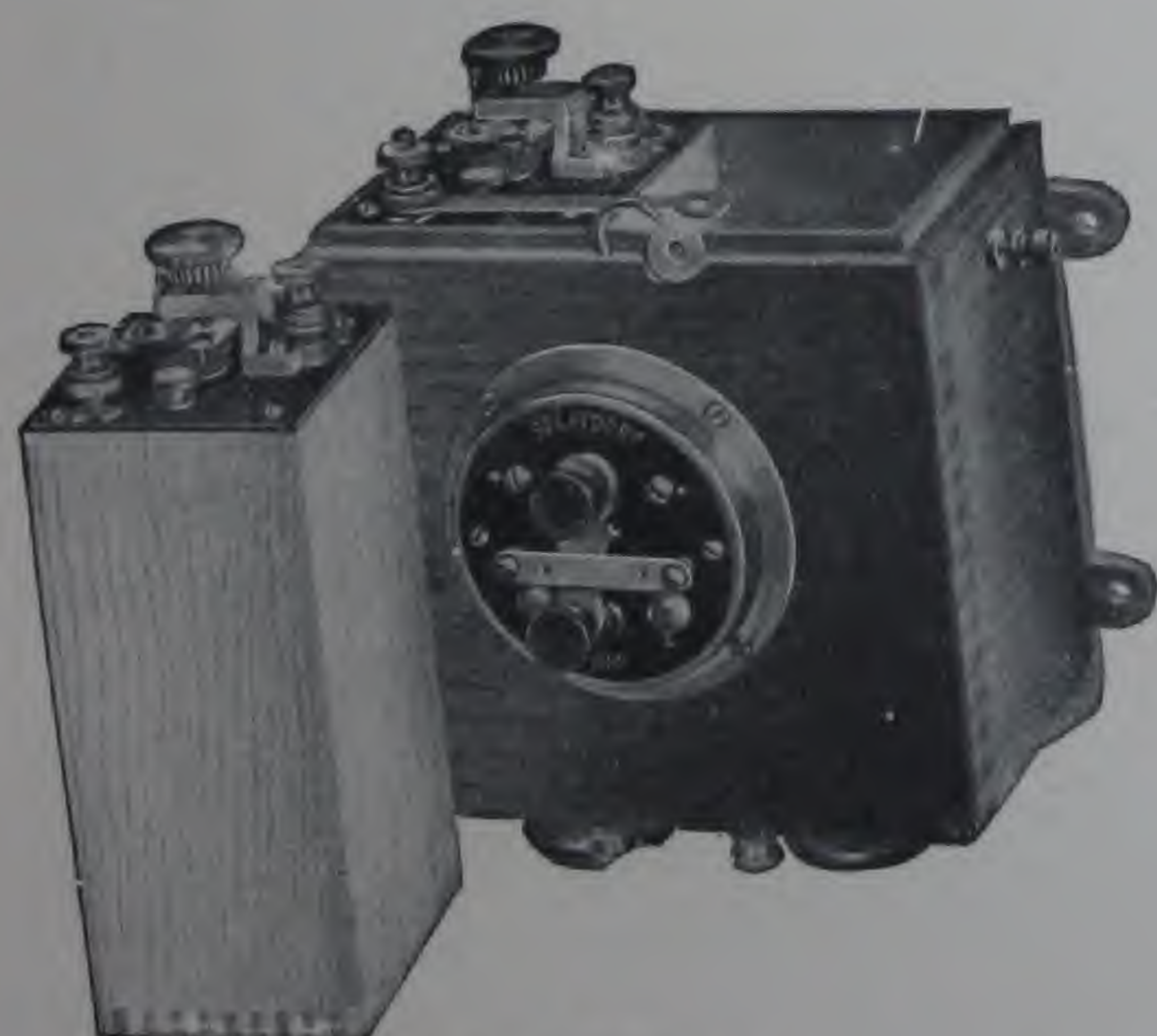
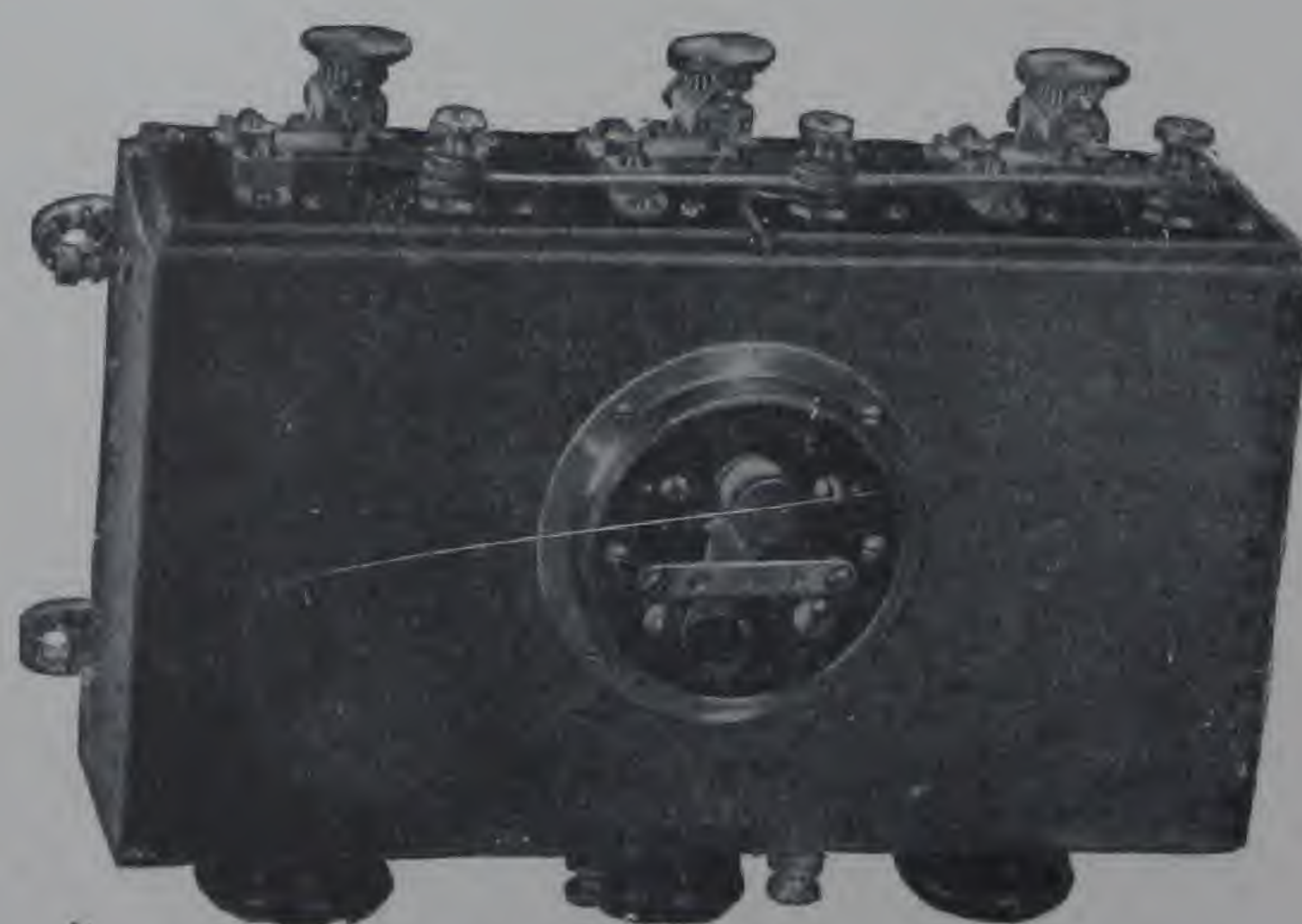


Single Cylinder



Four Cylinder

	Each
Single Cylinder Dash Coil	\$12.00
Double " " "	24.00
Three " " "	36.00
Four " " "	48.00
Equipped with Cut-out Switch	Extra 2.00
Units only	11.00

Two Cylinder  
Showing Unit Construction

Three Cylinder

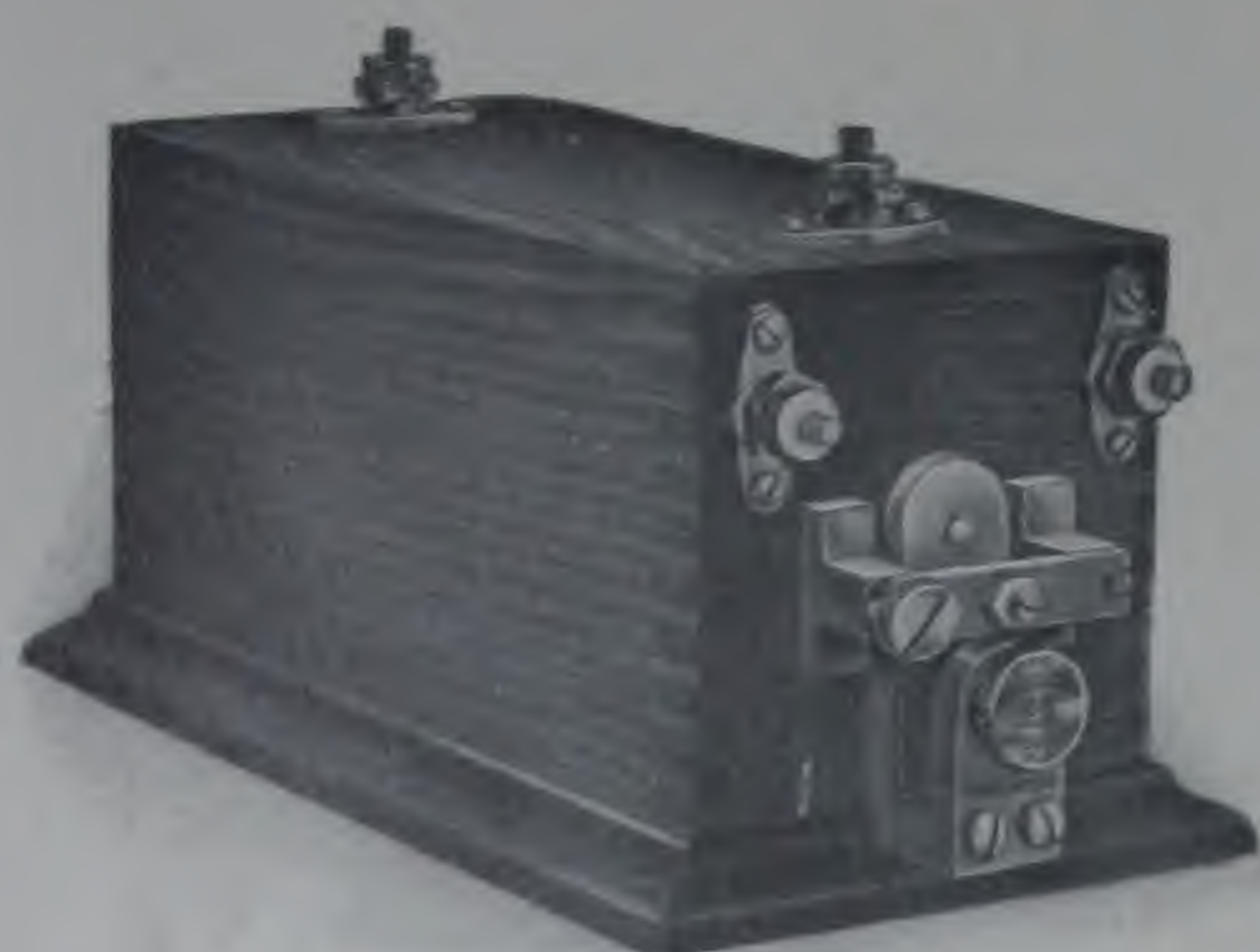
The illustrations show the Peerless Unit Construction Type.

In the narrow Type the units are placed lengthwise, which arrangement increases the length and decreases the width.

Above prices are for either Peerless or Narrow Type.

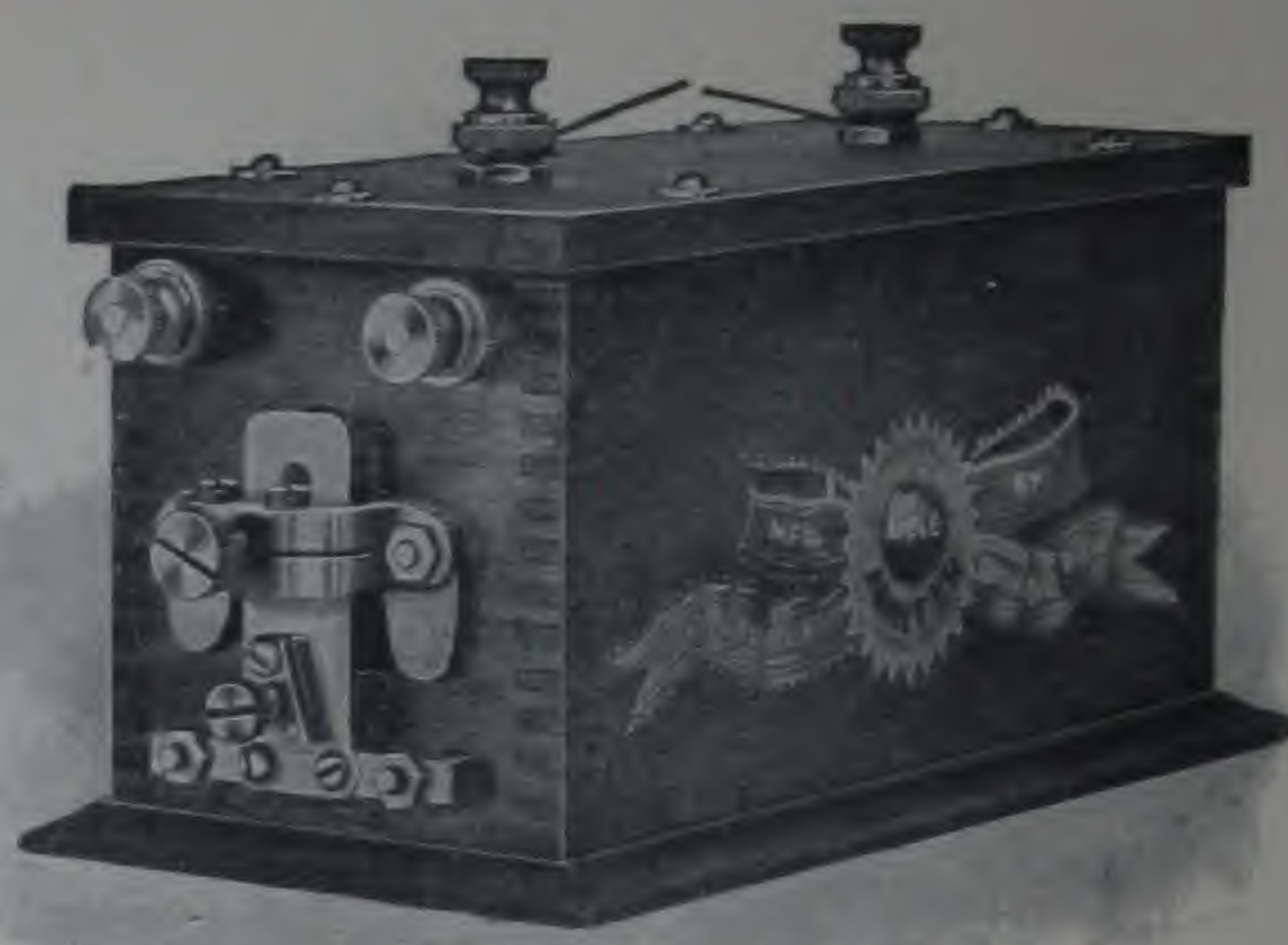


## Box Coils



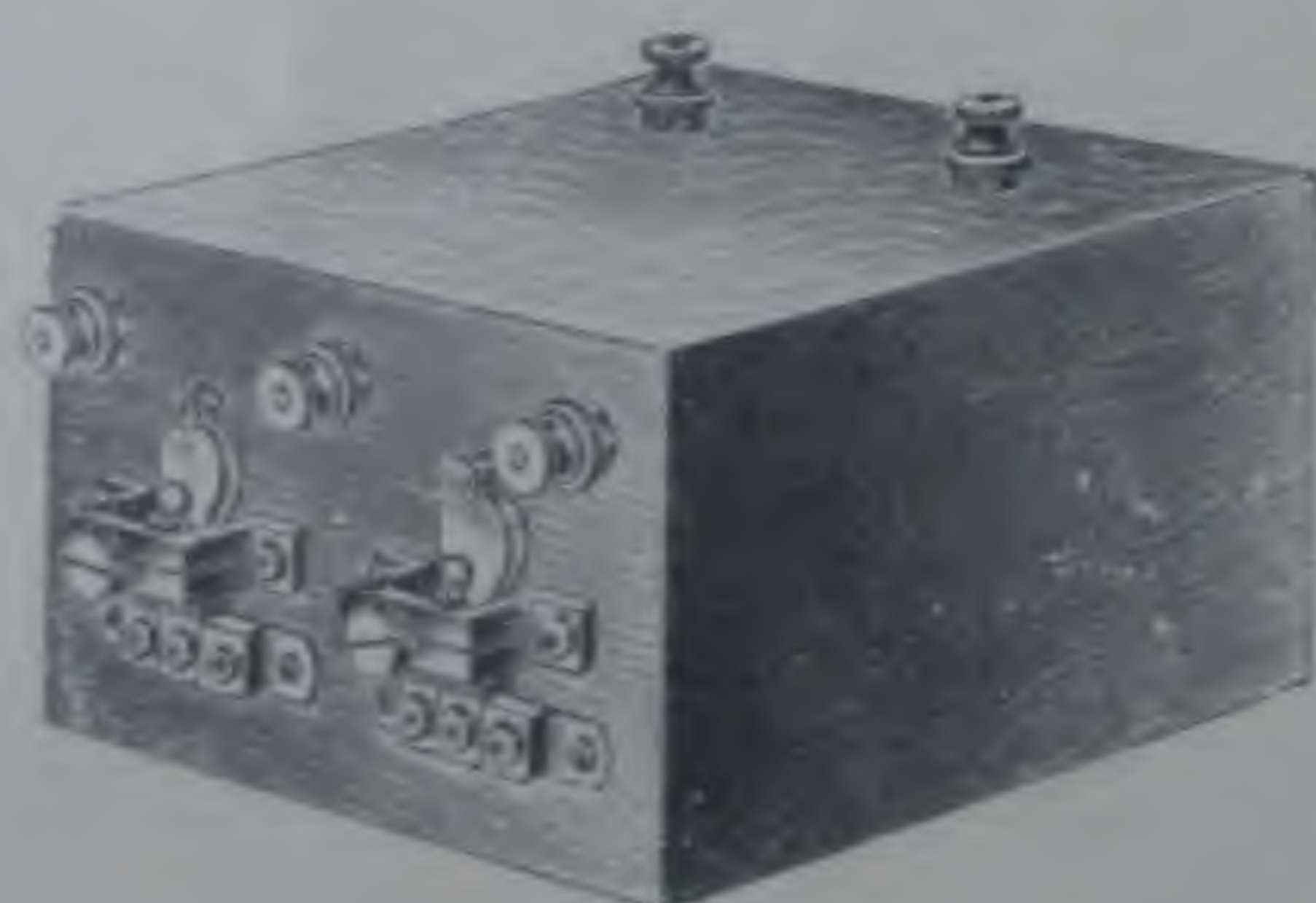
No. 14, Autocoil

No.		Each
14	Autocoil, Single Spring Vibrator,	\$6.00
18	" Compound "	6.60
29	" Without "	4.88



Type P, Apple Coil

No.		Each
116 P	Single Cylinder . . .	\$5.00
117 P	Double " . . .	10.00
118 P	Three " . . .	15.00
119 P	Four " . . .	20.00



Two Cylinder Splitdorf Coil

	Each
Single Cylinder . . .	\$10.00
Double " . . .	20.00
Three " . . .	30.00
Four " . . .	40.00



Type H, Connecticut Coil

	Each
Single Cylinder . . .	\$15.00
Double " . . .	30.00
Three " . . .	45.00
Four " . . .	60.00



## Ignition Cable

### Roebling Cable

The core of the Secondary Cable is composed of 104 No. 35 tinned copper wires braided together making an extremely flexible core not easily broken.

This core is enclosed in three layers of high grade rubber which is protected by two layers of a specially treated braided covering which is proof against heat, oil and water.

The core of the Primary Cable is composed of 26 No. 26 tinned copper wires twisted together protected by one layer of rubber and two braids.

Secondary Cable  $\frac{7}{16}$ " in diameter, per ft. . . \$0.25  
Primary "  $\frac{3}{8}$ " " " " " " . . . .12



### Packard Cable

The core of the Secondary Cable is of 40 No. 30 strands of tinned copper wire protected by three layers of rubber and three braids.

The Primary Cable has the same core as the secondary with one layer of rubber and two braids.

Secondary Cable  $\frac{1}{2}$ " in diameter, per foot . . . \$0.25  
Primary "  $\frac{1}{4}$ " " " " " " . . . .12



Packard Secondary Cable



Packard Primary Cable

### Peerless Cable

The core is composed of 7 No. 22 tinned copper wires protected by two layers of rubber and two braids.

$\frac{3}{8}$ " in diameter, per foot . . . . \$0.12



Peerless Cable

## Rajah Clip Terminals



Coil Ferrule Terminal

Each . . . . \$0.15



Clip Lug Terminal

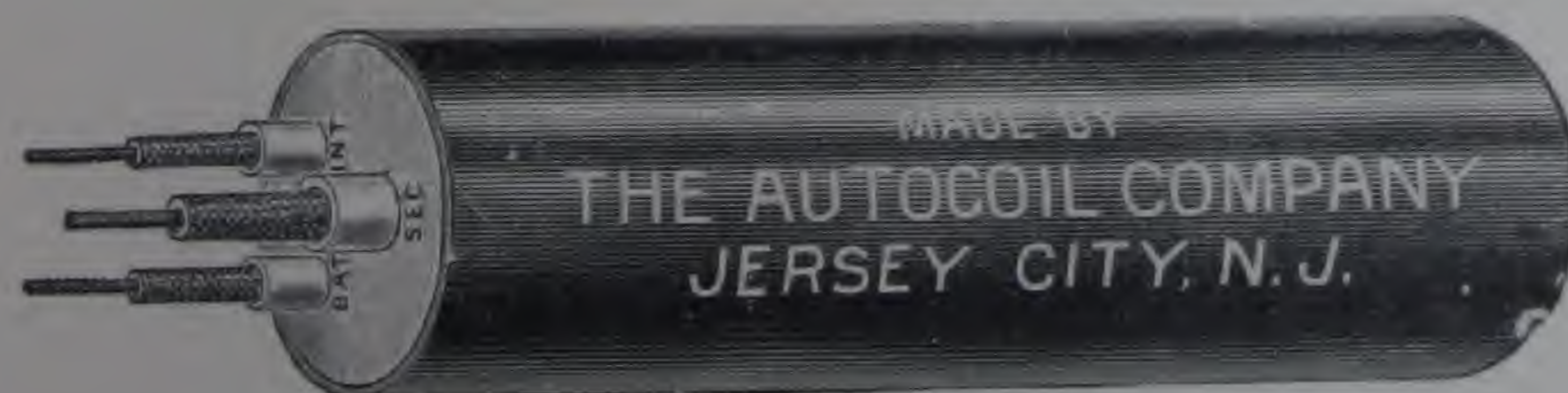
Each . . . . \$0.15



Clip Ferrule Terminal

Each . . . . \$0.15

## Spark Coils



No. 22, Motorcycle Coil

Each . . . . \$4.88



Type G, Apple Water-proof Coil

Each . . . . \$3.00

(Spark Coils of other styles listed on pages 75 and 77)



## Spark Plugs

## Sta-Rite Plugs



No. 4 A



No. 6



No. 24, Mica



No.	Each.
P <sub>4</sub> Porcelain Plug, one point, half inch	\$1.50
4A " " two " separable half inch	1.50
6 " " one " 18 M. M. Metric	1.50
8 " " " Autocar size, 7/8 in. 18 th.	1.50
14 " " " half inch long, ext's'n	1.50

No.	Each.
15 Porcelain Plug, one point, half inch, extra long extension for Winton Car	\$1.50
18 Cadillac Special, including No. 15 Plug	3.50
24 Mica Plug, half inch thread	1.75
26 " " 18 M. M. Metric	1.75

	Each.
Cadillac Mica Core, fits shell made by Cadillac M. C. Co.	\$1.25
Porcelain tubes or cores for Sta-Rite Plugs	.30
Mica tubes or cores for Sta-Rite Plugs	1.00
Porcelain Caps for Sta-Rite Plugs	.15

Sta-Rite Plugs can be furnished for any make of car.

## Splitdorf Plugs



Mica Type



I. P. and Rex Type

	each
Mica Type Plugs	\$1.50
I. P. " "	1.00
Rex " "	.60

Half inch or Metric.

## Soot Proof



Each	\$1.00
Half inch or Metric.	

## Perfection



Each	\$1.50
Half inch or Metric.	



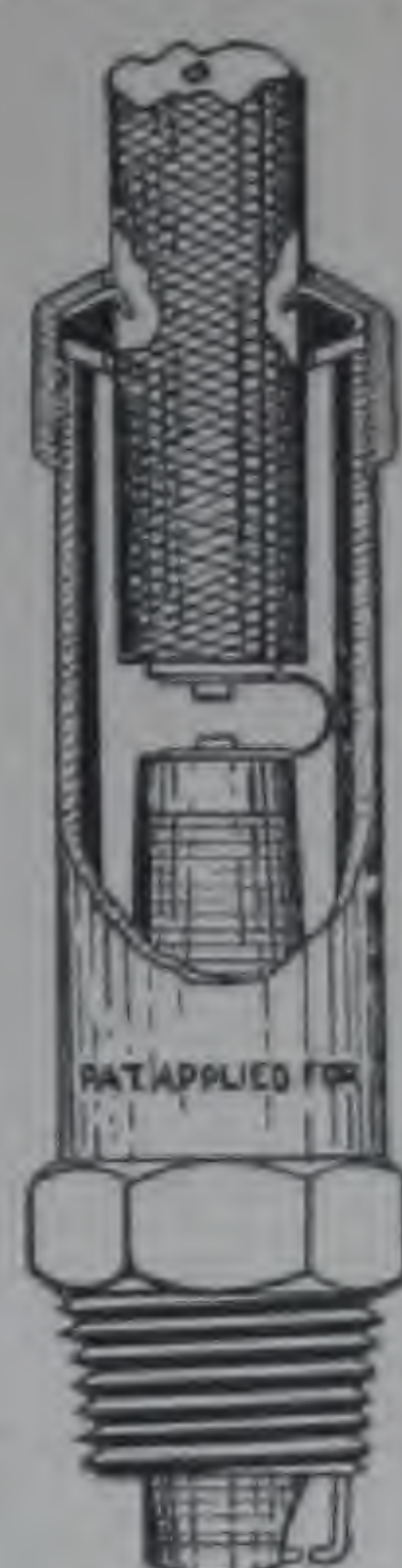
## Spark Plugs

The "Rajah"



Each . . . . . \$2.00  
Half inch or Metric.

Jewel Marine



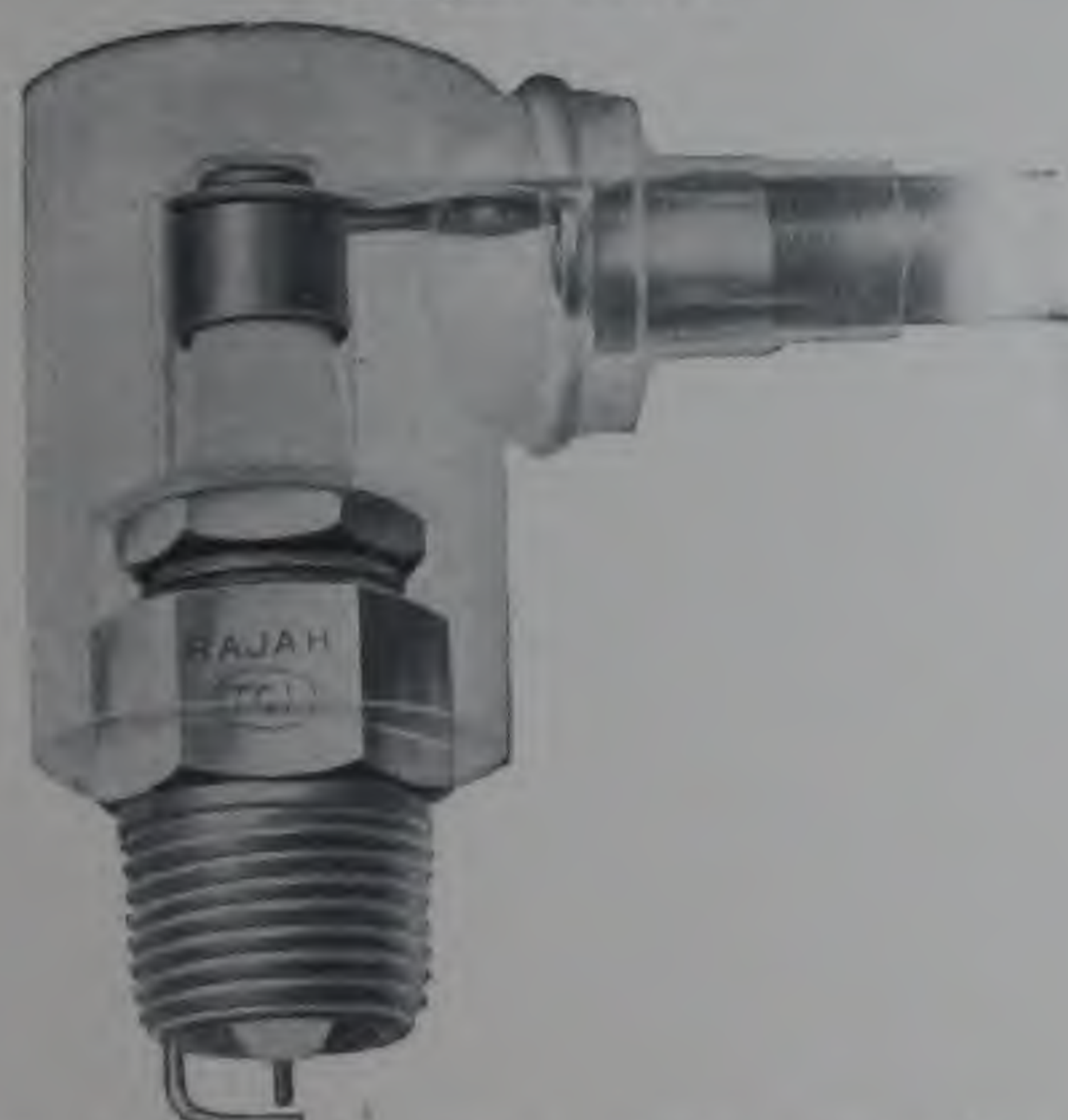
Each . . . . . \$4.00  
Half inch or Metric.

Jewel



Each . . . . . \$2.00  
 $\frac{3}{8}$ ,  $\frac{1}{2}$  inch or Metric.

Rajah Hood



The cap is of porcelain which completely covers the spark plug. A rubber nipple makes a water-tight flexible joint between secondary cable and porcelain hood.

Porcelain hood, with rubber nipple, \$0.60

M-A



Each . . . . . \$1.00  
Half inch or Metric.

H-M Fool Proof



Each . . . . . \$1.50  
Half inch or Metric.

Spit-fire



Each . . . . . \$1.50  
Half inch or Metric.

Spark Plug Boxes



Each, without plugs . . . . . \$1.00

Plug Umbrella



The Plug Umbrella is made of high grade rubber; is heat and oil proof, easy to apply and will fit any plug.

Each . . . . . \$0.50

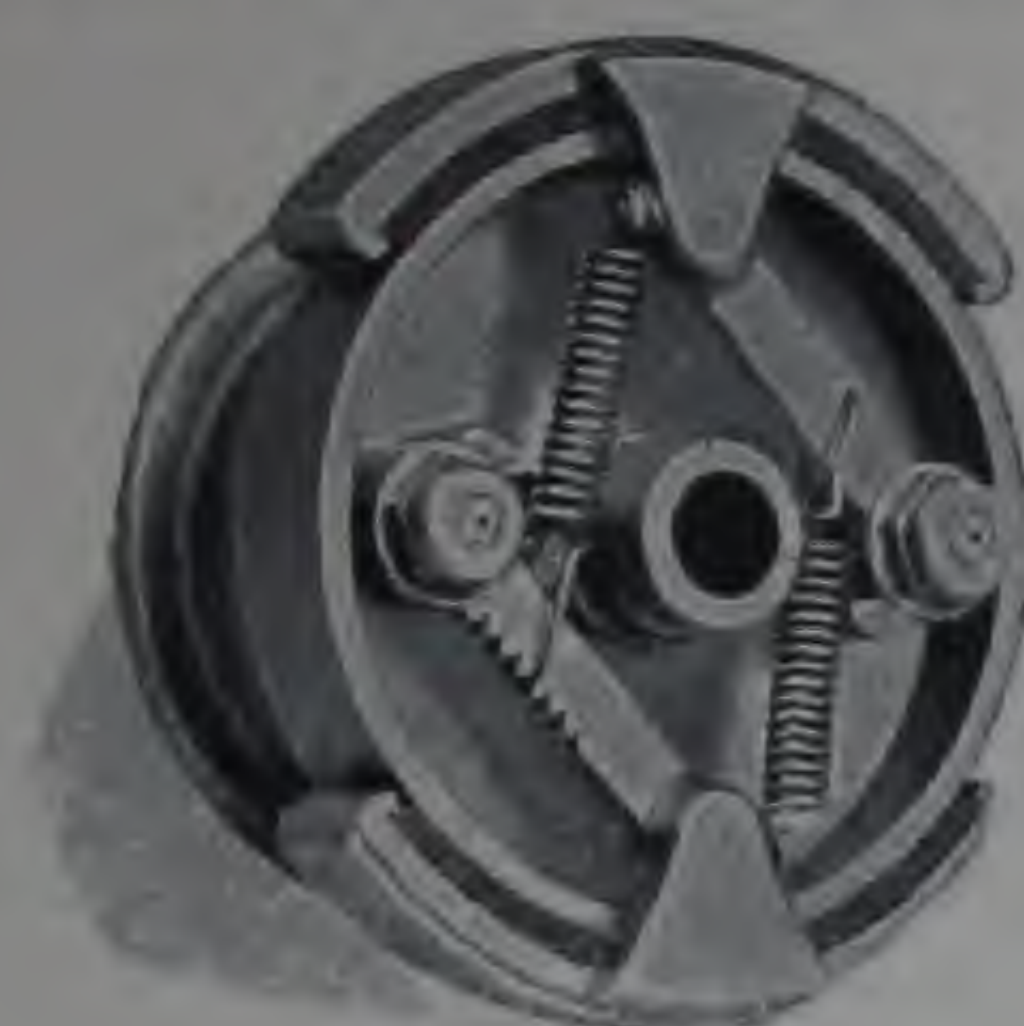






## Governors and Pulleys for Apple Dynamos

Belt Clutch Governor



No.		
2 C, 2 inches in diameter		\$8.00
3 C, 3 " " "		8.50
Will maintain speed of the dynamo constant at 1000 R. P. M. no matter how fast the engine is running.		

Friction Clutch Governor



No.		
3 F, 3 inches in diameter		\$ 9.00
4 F, 4 " " "		9.50
5 F, 5 " " "		10.00
6 F, 6 " " "		10.50
Will maintain speed of the dynamo constant at 1000 R. P. M. no matter how fast the engine is running.		
For use with dynamo fitted with spring base.		
Same construction as belt clutch governor except that it has leather friction surface, easily renewed when worn out.		

Automatic Friction Governor



No.		
3 J, 3 inch Automatic Bevel Friction Governor, with cork inserts,		\$10.00

In using the Bevel Friction Governor it is necessary to have either a bevel on the edge of the fly wheel, with the dynamo at right angles to the wheel, or to set the dynamo at an angle to the face of the wheel. The Bevel Friction Governor operates as follows: The leather friction cone is brought into contact with the rim of the fly wheel by means of the spiral spring, causing it to rotate, and it in turn rotating the weights. The weights expand because of centrifugal force, and in so doing draw the friction cone away from rim of fly wheel, preventing speed of dynamo from going higher than adjusted.

Gear Clutch Governor



A Mechanical Method of Driving an Ignition Dynamo			
No.	Positive	Noiseless	Dependable
3 D, 3 inch pitch diameter			\$ 9.00
4 D, 4 " " "			10.00
Best Rawhide Pinions. Same governing mechanism as used on the Belt Clutch Governor.			

The Apple Chain Clutch Governor

No.		
1 E 7 teeth for $\frac{3}{16}$ inch chain		\$9.00

This furnishes a positive drive and is recommended for use where the dynamo must be placed so far away from the fly wheel or driving pulley as to make the gear clutch impractical.

All dynamos and magnetos used on engines which vary in speed should be governed to maintain their speed constant. A governor should also be used on dynamos where it is desired to start the engine from the generator itself. This can be accomplished on almost any engine.

The Apple Governors are made in two general types—Clutch and Friction. The Clutch type is arranged to be driven by Belt, Friction, Chain or Gear. We recommend the automatic governors, as they are simple to apply. In fact so much so that small incandescent lamps can be worked from the igniter without danger of burning them out, no matter what the speed of the engine may be. These governors are very compact and solid, made almost entirely of steel. The Clutch type has a large well for proper lubrication; the oil being fed through felt wicks to the shaft.

Leather Friction Pulleys

No.		
2 2 inches in diameter		\$1.25
2 1/2 2 1/2 " " "		1.50
3 3 " " "		1.75

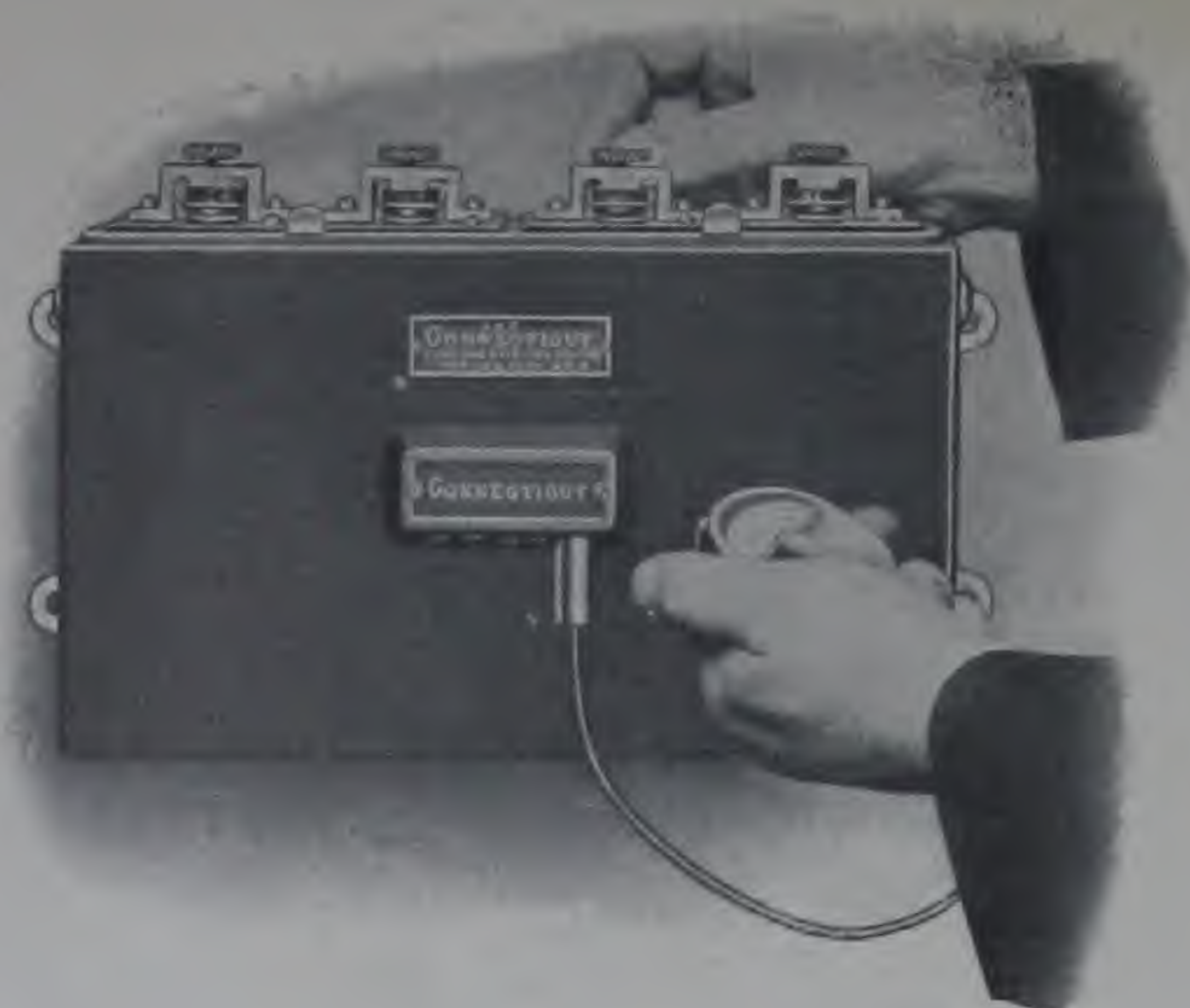
Plain Pulleys can be used on the Apple Dynamo only when the driving pulley or fly wheel is small and runs at a slow speed. On variable and high speed engines the Apple Dynamo should be fitted with a governor.

Iron Belt Pulleys

No.		
1 1/2 1 1/2 inches in diameter		\$0.40
2 2 " " "		.53
2 1/2 2 1/2 " " "		.65



## Connecticut Coil Current Indicator



Few motorists have the slightest idea why it is that their sparking batteries keep giving out and the purchase of new ones become necessary after every three or four hundred miles of service, or why storage batteries require re-charging equally so often.

In adjusting a coil, increasing the tension on the vibrator, increases the amount of current passing through the coil, and in the majority of cases coils are adjusted to consume more current than is actually required to do the work required of them.

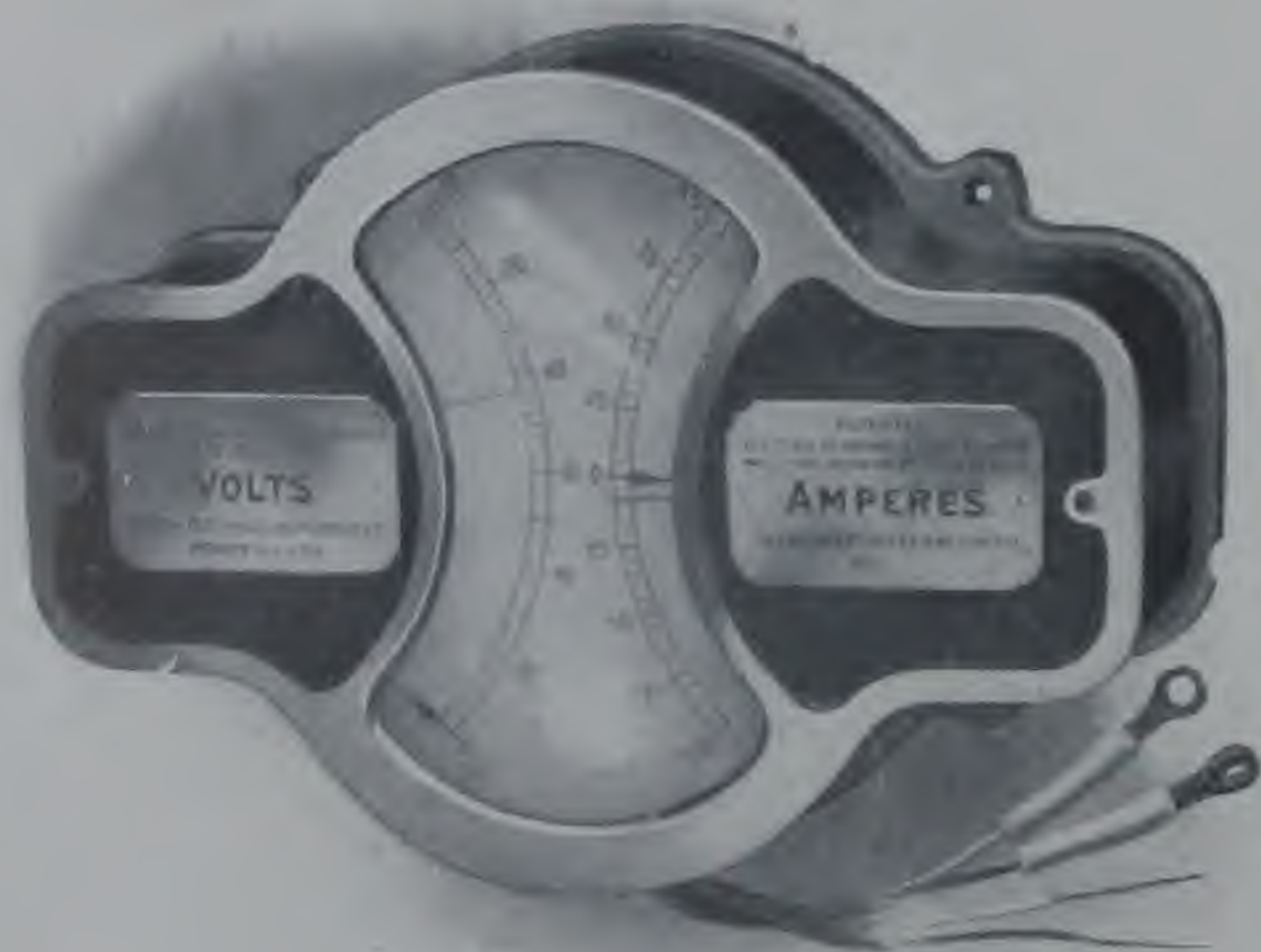
A coil will fire a charge perfectly on a given amount of current, and all used over this amount is more than a loss, as the greater the amount of the current passing through the coil the quicker the battery becomes exhausted, and the more the sparking and timer contacts burn, causing wear and improper timing.

The sound of the vibrator affords little indication of the amount of current passing, and the only sure and safe way to know, is by using this indicator. Adjustments should always be made by the aid of this instrument.

This device consists of a special form of indicating meter, attached to which is a double conducting cord and metallic circuit plug, and with which it is possible at any time to see just how much current is being taken from the battery. Our type P plug switch is also required, as shown on page 127.

To operate, remove the running plug, which is the ordinary metallic plug with rubber handle, and push the metallic plug, attached to the meter, into the jack from which the running plug has just been removed. This throws the instrument into circuit and indicates the amount of current passing through the coil.

Each, including plug, cord and case	\$7.50
With type P plug switch, as shown	8.75



Weston Volt Ammeter—Model 39

## Weston Volt Ammeter

### For Storage Battery Cars and Launches

This instrument was designed especially for Automobile service and extreme care has been taken in its construction to enable it to stand without injury the constant vibration to which such instruments are subjected when used on vehicles.

This model has a well designed and carefully finished aluminum case which is practically water-proof.

The zero mark on the Ammeter scale may be located at any point.

Ammeters, with scales figured in this manner, will be found particularly useful in charging and discharging of storage batteries, as the strength of either current may be read directly without changing connections or introducing reversing switches in the circuit.

Range up to 150 amperes, up to 150 volts, each	\$35.00
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Robert Switchboard Volt Meter

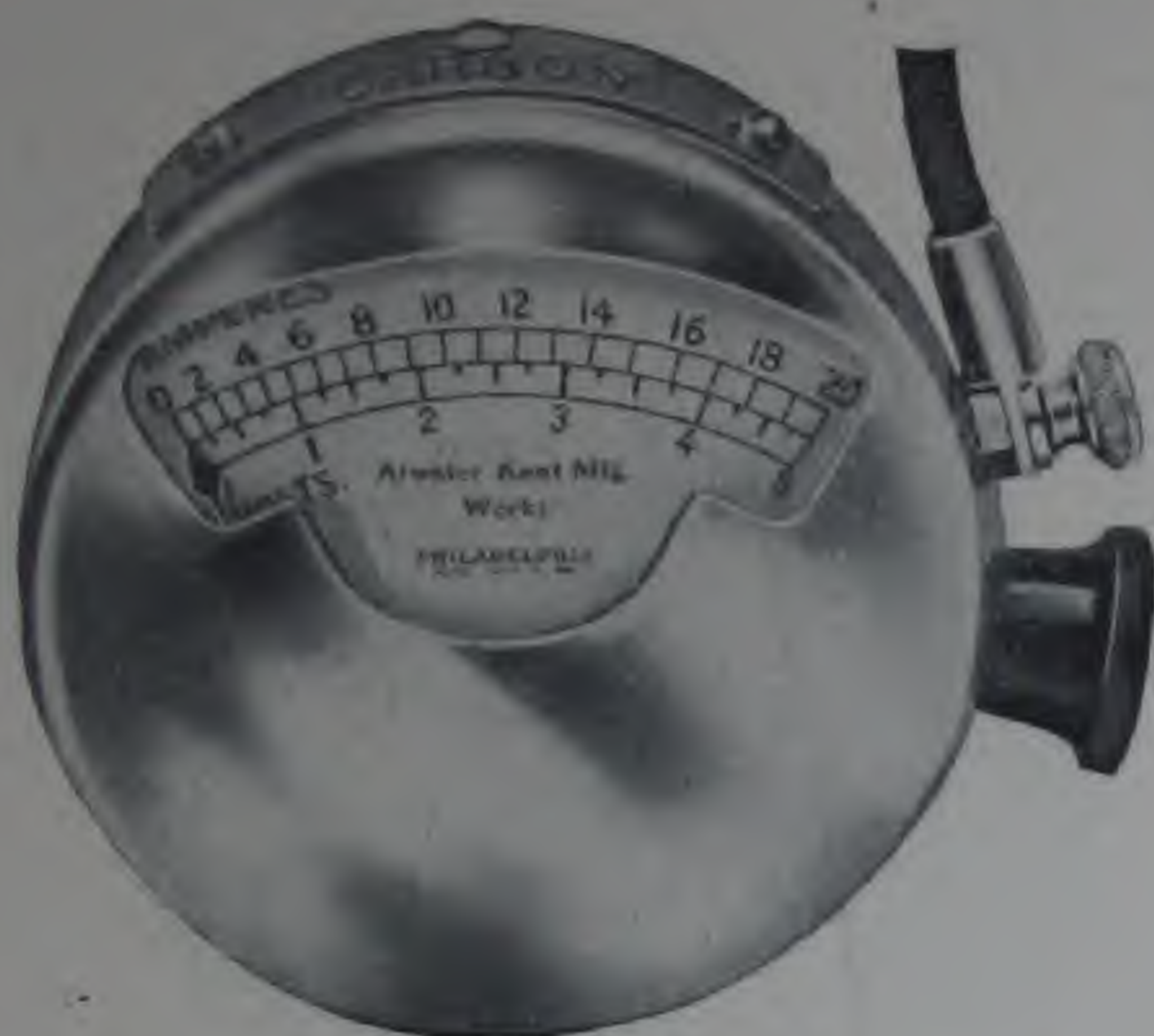
## Robert Switchboard Meters

Diameter of base 2½ inches

	Each
Ammeter 0-15 Amperes	\$6.00
" 0-24 "	6.00
" 0-30 "	6.00
Volt meter 0-6 Volts	6.00
" 0-12 "	6.00
" 0-15 "	6.00



## Pocket Battery Meters

**Kent Automatic Volt Ammeter**

The Automatic Volt Ammeter should not be used for testing storage cells as a volt meter only should be used for this purpose.

		Each.
0-5 Volts	0-20 Amperes	\$6.00
0-6 "	0-30 "	6.00
0-10 "	0-20 "	7.00
0-10 "	0-30 "	7.00
0-15 "	0-20 "	7.00
0-15 "	0-30 "	7.00

**Volt Meters**

Same in appearance as Automatic Volt Ammeter, but without button attachment.

	Each.
0-3 Volts	\$4.00
0-9 "	4.00
0-15 "	5.00
0-20 "	5.00

**Ampere Meters**

Same in appearance as Automatic Volt Ammeter, but without button attachment.

	Each.
0-20 Amperes	\$4.00
0-30 "	4.00

**Kent Dri-Sel Tester**

	Each.
0-30 Amperes	\$3.00

**Ever Ready Ammeter**

	Each.
0-30 Amperes	\$3.50

**Robert Volt Ammeter**

	Each.
0-3 Volts	\$6.00
0-6 "	6.00
0-12 "	6.00

**Robert Volt Meter**

	Each.
0-3 Volts	\$5.00
0-6 "	5.00
0-12 "	5.00
0-15 "	5.00

**Robert Ammeter**

	Each.
0-30 Amperes	\$5.00

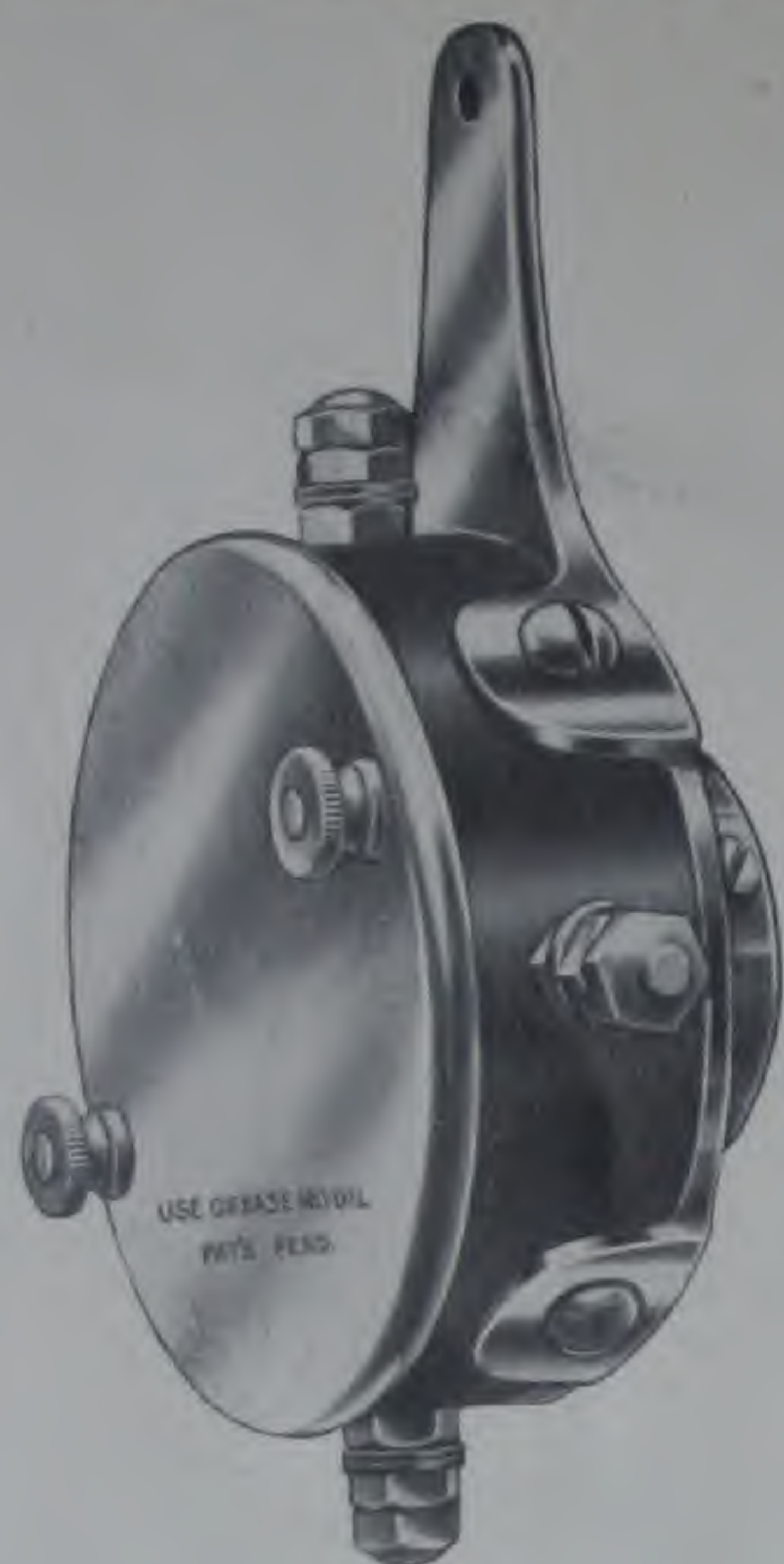
**Connecticut Volt Ammeter**

No.	Each.
801 0-6 Volts 0-24 Amperes	\$6.00
802 0-6 " 0-30 "	6.00
Ammeter No. 803 0-30 "	4.00
Volt meter No. 804 0-3 volts 1-10 dimensions	4.00



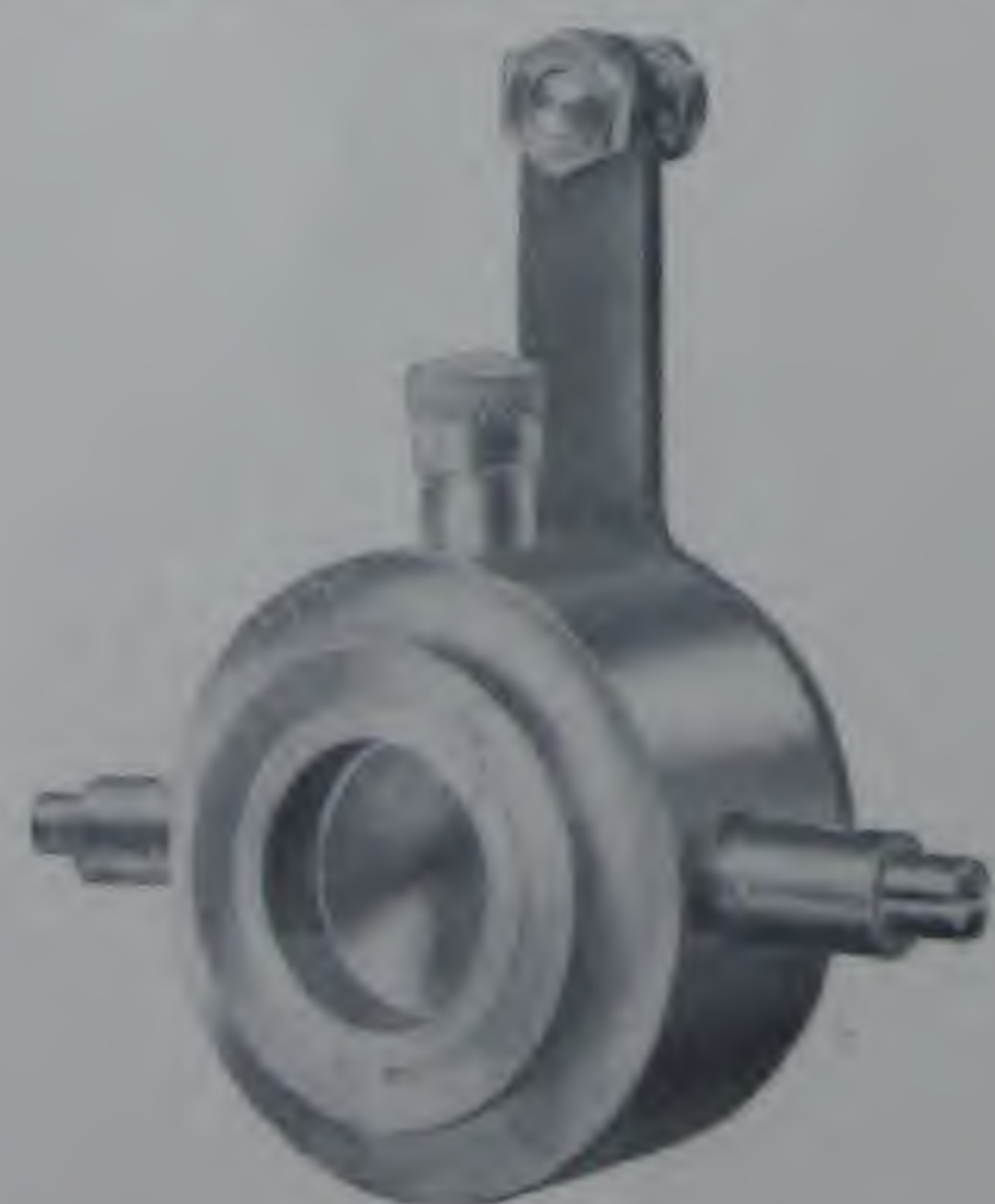
## Timers and Distributors

The Altemus "Ideal" Timer



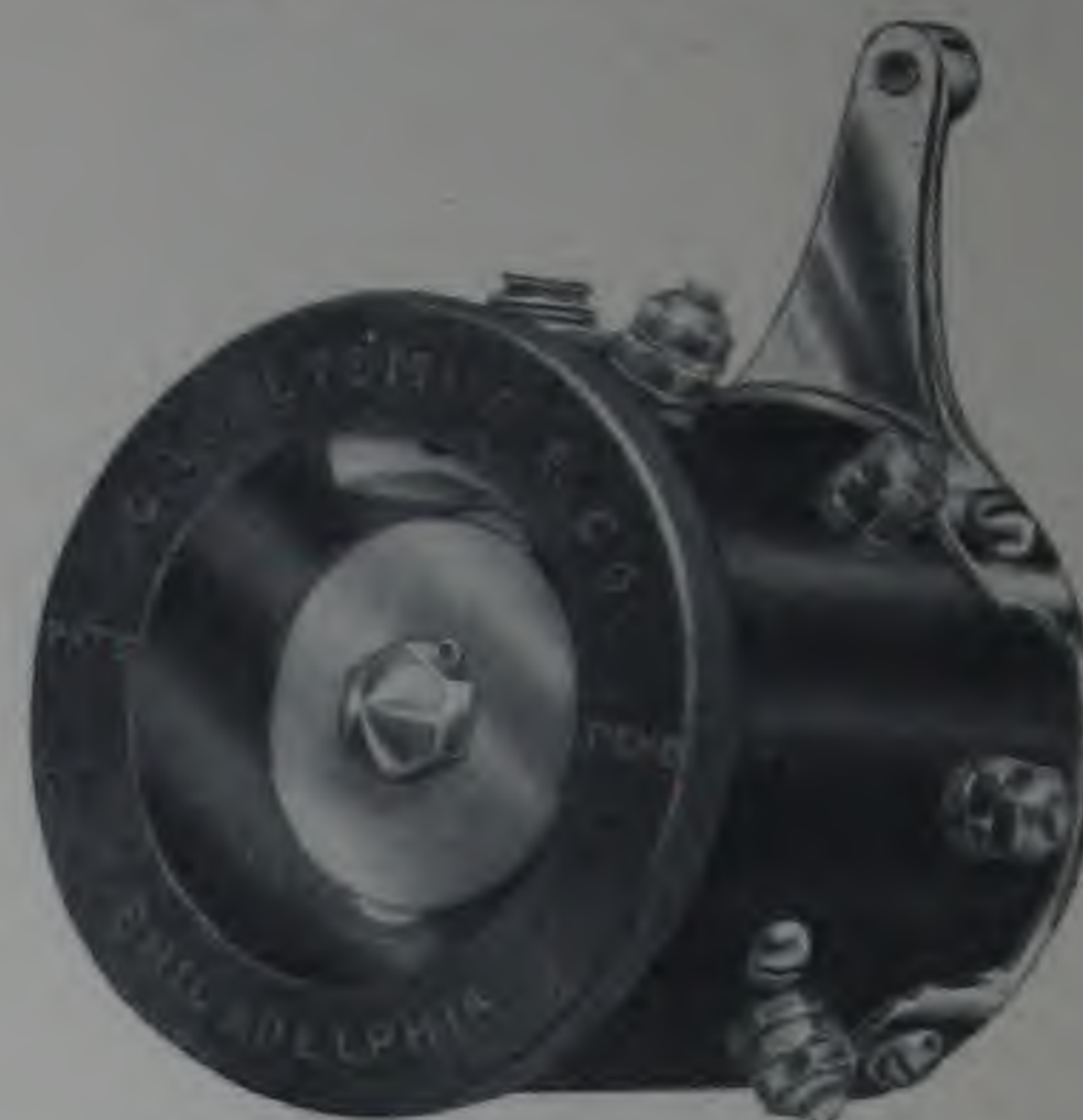
	Each.
One Cylinder . . . .	\$4.50
Two " . . . .	5.00
Three " . . . .	5.50
Four " . . . .	6.00

The Atwater Kent Timer



	Each.
One Cylinder . . . .	\$7.25
Two " . . . .	7.50
Three " . . . .	7.75
Four " . . . .	8.00

The Altemus Distributor

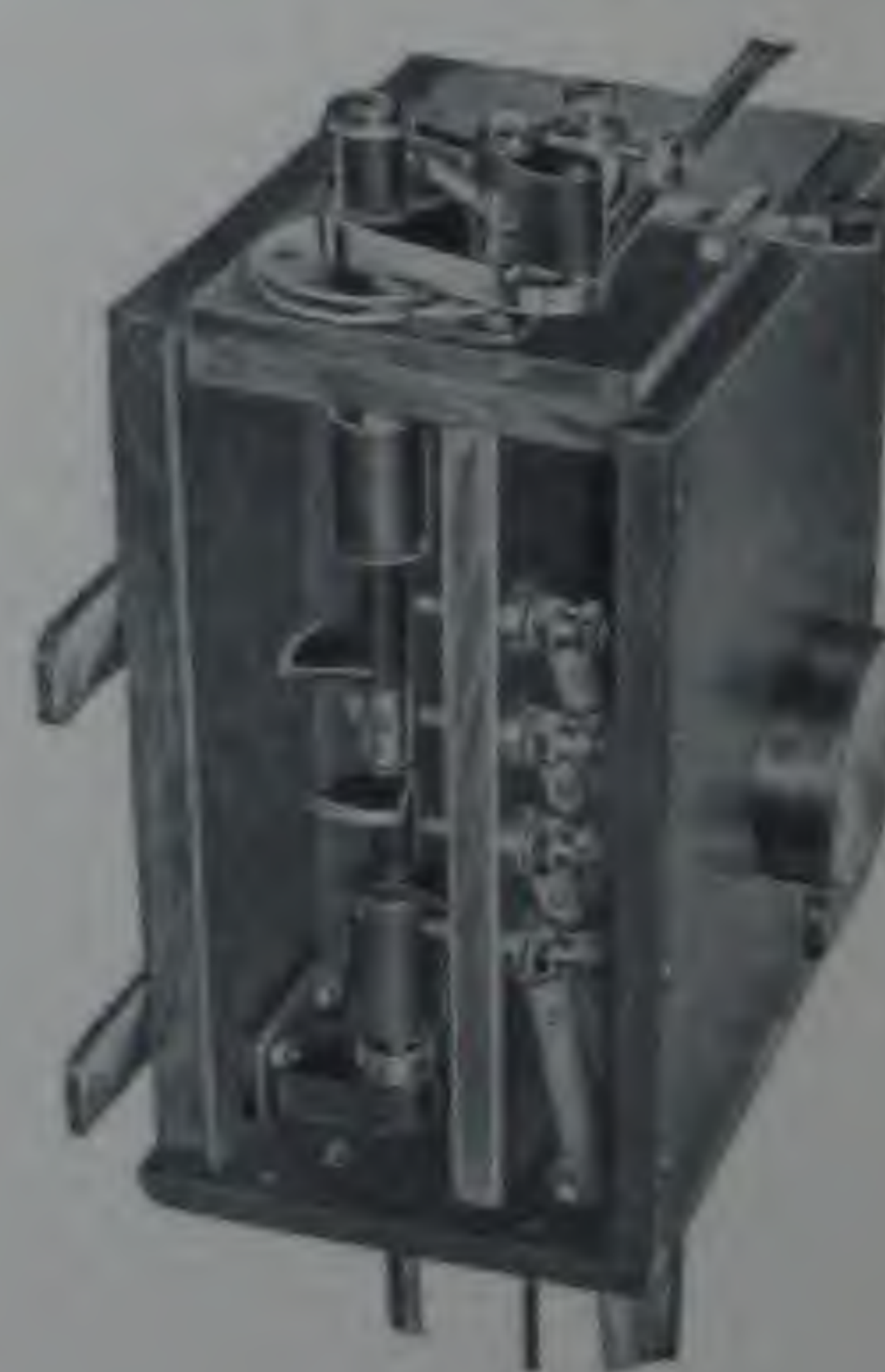


A Practical Distributor Perfectly Synchronized

	Each.
Two Cylinder . . . .	\$10.00
Three " . . . .	12.00
Four " . . . .	15.00
Six " . . . .	30.00
Eight " . . . .	35.00

By using a Distributor two or more cylinders may be fired from one coil.

The Atwater Kent Spark Generator



This Spark Generator is a complete sparking apparatus in one compact unit, replacing Coil, Timer and Distributor.

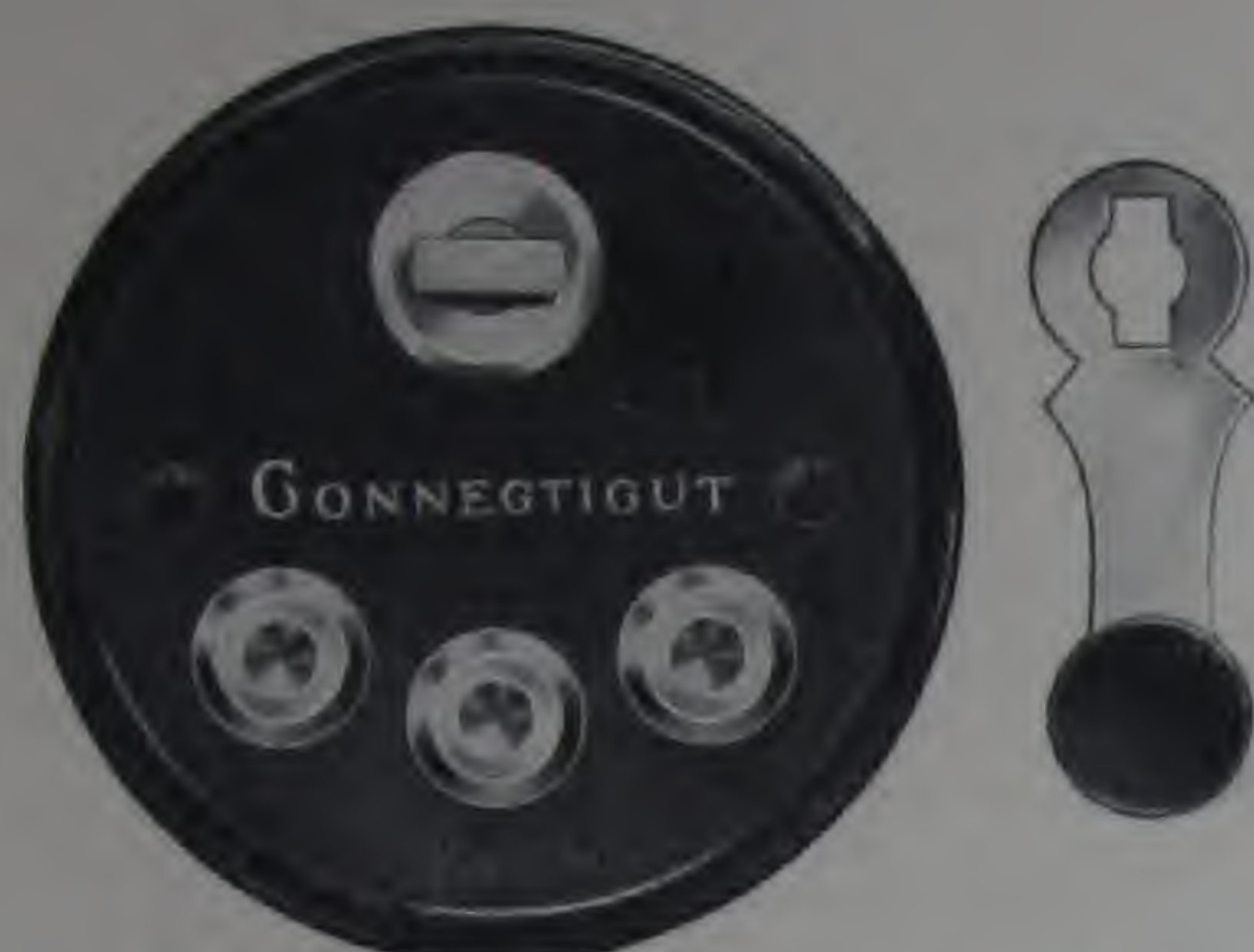
The current consumption is reduced to a minimum; a four cylinder car has been run sixty miles on two vest pocket batteries with this generator.

This system does not use a magnetic vibrator but is operated mechanically by the engine.

Generator for Four Cylinder Engine . . . \$75.00



## Switches



Connecticut Lever Switch

Connecticut Lever Switch  
Removable Lever

## Operation

First point one set of batteries  
Third " second " "  
Centre " dead

Each . . . . . \$1.25



Connecticut Plug Switch

Connecticut Plug Switch  
Removable Plug

This Switch should be used for the Coil Current Indicator shown on page 124

## Operation

First hole one set of batteries  
Third " second " "  
Centre " both " "

Each . . . . . \$1.25



Splitdorf Switch

Splitdorf Switch  
Removable Plug

## Operation

First point one set of batteries  
Second " second " "

Each . . . . . \$1.00



Economy Switch

Economy Switch  
Removable Plug

## Operation

First point one set of batteries  
Second " second " "  
Third " both in multiple series  
Fourth " " " series

Each . . . . . \$1.50



Atwater Kent Switch

Atwater Kent Switch  
With or without Removable Plug

## Operation

First point one set of batteries  
Second " second " "

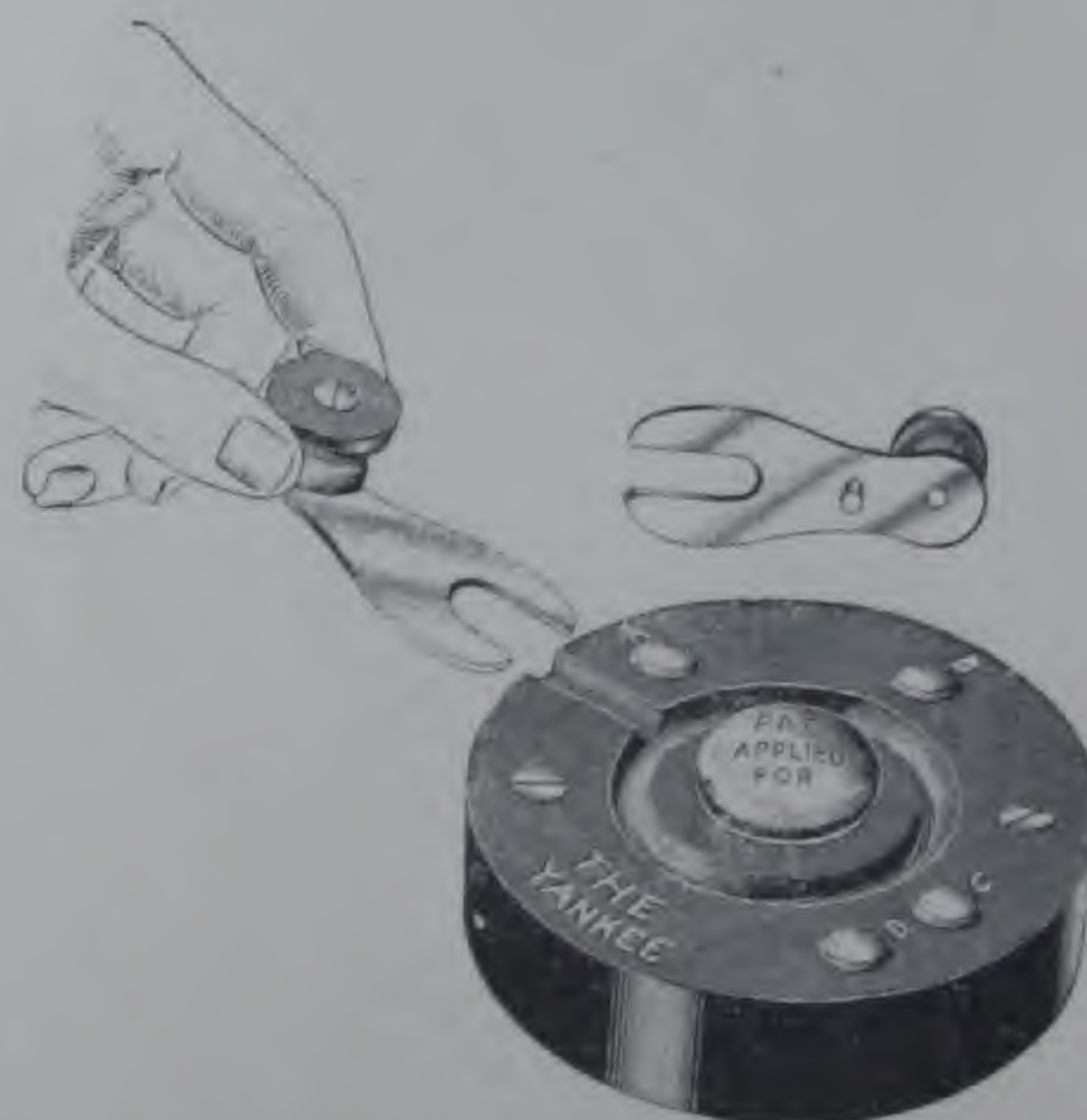
Each . . . . . \$2.00

The Yankee Switch  
Removable Lever

## Operation

Lever at A first set of batteries  
Lever at B second " "  
Lever at C and D both "

Each . . . . . \$1.00



The Yankee Switch

## Snap Switch

First snap makes connection so that coil is run from storage battery. Second snap—connections are changed so that coil is supplied from dynamo. Third snap makes connections so that dynamo supplies coil and charges storage battery. Fourth snap—all off.

Each . . . . . \$1.50

Extra Plugs for all switches, each \$0.15



Snap Switch



Switch Plug



## Storage Batteries



## Apple Storage Batteries

No.									
2 N	2 volt	30	ampere	hour					\$ 5.00
3 N	4 "	30	"	"					10.00
4 N	6 "	30	"	"					15.00
5 N	8 "	30	"	"					20.00
6 N	10 "	30	"	"					25.00
7 N	2 "	60	"	"					10.00
8 N	4 "	60	"	"					20.00
9 N	6 "	60	"	"					24.00
10 N	8 "	60	"	"					32.00
11 N	10 "	60	"	"					40.00
12 N	6 "	90	"	"					36.00
13 N	8 "	90	"	"					48.00
14 N	10 "	90	"	"					60.00

The Witherbee Storage Battery Ignitor  
(Patented)

No.	Dimensions.			Capacity.		Weight.	Price.	Packing Charges Extra.
	Length.	Width.	Height.	Volts.	Amp. Hours.			
44	7 $\frac{3}{8}$	3 $\frac{1}{2}$	7 $\frac{5}{8}$	4	40	10 lbs.	\$13.50	15c.
46	7 $\frac{3}{8}$	4 $\frac{5}{8}$	7 $\frac{3}{4}$	6	40	16 "	20.00	15c.
48	7 $\frac{3}{8}$	5 $\frac{3}{4}$	7 $\frac{3}{4}$	8	40	20 "	26.00	20c.
54	6 $\frac{1}{4}$	4 $\frac{3}{4}$	6 $\frac{1}{2}$	4	50	12 "	16.00	20c.
56	6 $\frac{1}{2}$	6 $\frac{3}{8}$	6 $\frac{1}{2}$	6	50	18 "	25.00	20c.
56F	12 $\frac{7}{8}$	3	7 $\frac{1}{4}$	6	50	18 "	25.00	20c.
58	8 $\frac{1}{8}$	6 $\frac{1}{4}$	6 $\frac{1}{2}$	8	50	22 "	33.00	20c.
64	7 $\frac{3}{8}$	4 $\frac{7}{8}$	7 $\frac{3}{4}$	4	60	18 "	20.00	20c.
64L	6 $\frac{1}{2}$	4 $\frac{5}{8}$	9	4	60	18 "	20.00	20c.
66	7 $\frac{3}{8}$	6 $\frac{7}{8}$	7 $\frac{3}{4}$	6	60	24 "	29.00	25c.
68	8 $\frac{3}{4}$	7 $\frac{3}{8}$	7 $\frac{3}{4}$	8	60	35 "	37.00	25c.
84	7 $\frac{1}{2}$	6 $\frac{5}{8}$	7 $\frac{3}{4}$	4	80	22 "	25.00	25c.
86	7 $\frac{3}{8}$	9 $\frac{1}{4}$	7 $\frac{3}{4}$	6	80	34 "	36.00	25c.



## "Geecee" Dry Storage Battery

Style.	Size.	Voltage (Guaranteed).	Capacity.	Plates.	Weight.	Price.
A-1	6x6x1 $\frac{1}{2}$	2.10	40 A. H.	3	4 $\frac{3}{4}$ lbs.	\$ 7.00
A-2	6x6x3	4.20	40 A. H.	6	10 "	13.50
A-3	6x6x4 $\frac{1}{2}$	6.30	40 A. H.	9	15 "	20.00
A-4	6x6x6	8.40	40 A. H.	12	19 $\frac{1}{2}$ "	26.00
B-1	6x6x2 $\frac{1}{8}$	2.10	60 A. H.	5	7 $\frac{1}{2}$ "	10.00
B-2	6x6x4 $\frac{1}{4}$	4.20	60 A. H.	10	16 "	20.00
B-3	6x6x6 $\frac{3}{8}$	6.30	60 A. H.	15	24 "	29.00
B-4	6x6x8 $\frac{1}{2}$	8.40	60 A. H.	20	32 "	37.00
C-1	6x6x2 $\frac{3}{4}$	2.10	80 A. H.	7	10 "	13.00
C-2	6x6x5 $\frac{5}{8}$	4.20	80 A. H.	14	22 "	25.00
C-3	6x6x8 $\frac{1}{2}$	6.30	80 A. H.	21	32 "	36.00
C-4	6x6x11 $\frac{3}{8}$	8.40	80 A. H.	28	42 "	52.00

Special sizes and shapes to order—Any Voltage.

Any Capacity up to 300 Ampere-Hours.

Packing Charges 20c extra for each Battery.



# The DURO Dry Storage Battery



No.	Volts	A. H.	Length, Inches	Width, Inches	Height, Inches	Price	No.	Volts	A. H.	Length, Inches	Width, Inches	Height, Inches	Price
24	4	20	6 $\frac{3}{8}$	3 $\frac{3}{8}$	8 $\frac{3}{8}$	\$12.00	64	4	60	5 $\frac{3}{4}$	5	9 $\frac{1}{4}$	\$19.00
204	4	20	4	5 $\frac{3}{4}$	8 $\frac{1}{4}$	12.00	65	4	60	10 $\frac{1}{4}$	3	9 $\frac{1}{4}$	19.00
205	4	20	11 $\frac{1}{8}$	2 $\frac{1}{8}$	8 $\frac{1}{4}$	12.00	66	6	60	8 $\frac{1}{8}$	5	9 $\frac{1}{4}$	27.00
26	6	20	9 $\frac{1}{4}$	3 $\frac{3}{8}$	8 $\frac{3}{8}$	16.00	67	6	60	14 $\frac{7}{8}$	3	9 $\frac{1}{4}$	27.00
206	6	20	5 $\frac{1}{2}$	5 $\frac{3}{4}$	8 $\frac{1}{4}$	16.00	68	8	60	10 $\frac{1}{2}$	5	9 $\frac{1}{4}$	35.00
207	6	20	16 $\frac{3}{4}$	2 $\frac{1}{8}$	8 $\frac{1}{4}$	16.00	610	10	60	12 $\frac{7}{8}$	5	9 $\frac{1}{4}$	43.00
28	8	20	12 $\frac{3}{8}$	3 $\frac{3}{8}$	8 $\frac{3}{8}$	20.00	612	12	60	15 $\frac{1}{4}$	5	9 $\frac{1}{4}$	51.00
208	8	20	7	5 $\frac{3}{4}$	8 $\frac{1}{4}$	20.00							
210	10	20	8 $\frac{1}{2}$	5 $\frac{3}{4}$	8 $\frac{1}{4}$	24.00	74	4	70	6 $\frac{3}{4}$	5 $\frac{3}{4}$	9	20.00
212	12	20	10	5 $\frac{3}{4}$	8 $\frac{1}{4}$	28.00	75	4	70	11 $\frac{1}{8}$	3 $\frac{3}{8}$	9	20.00
254	4	25	4	5	9 $\frac{1}{4}$	13.00	76	6	70	8 $\frac{3}{4}$	5 $\frac{3}{4}$	9	30.00
255	4	25	10 $\frac{1}{4}$	2 $\frac{1}{8}$	9 $\frac{1}{4}$	13.00	77	6	70	16 $\frac{3}{4}$	3 $\frac{3}{8}$	9	30.00
256	6	25	5 $\frac{1}{2}$	5	9 $\frac{1}{4}$	17.50	78	8	70	11 $\frac{1}{2}$	5 $\frac{3}{4}$	9	40.00
257	6	25	14 $\frac{7}{8}$	2 $\frac{1}{8}$	9 $\frac{1}{4}$	17.50	710	10	70	14 $\frac{1}{8}$	5 $\frac{3}{4}$	9	50.00
258	8	25	7	5	9 $\frac{1}{4}$	22.00	712	12	70	16 $\frac{3}{4}$	5 $\frac{3}{4}$	9	60.00
2510	10	25	8 $\frac{1}{2}$	5	9 $\frac{1}{4}$	26.50							
2512	12	25	10	5	9 $\frac{1}{4}$	31.00	104	4	100	10 $\frac{1}{4}$	5	8 $\frac{1}{4}$	30.00
2518	18	25	14 $\frac{1}{2}$	5	9 $\frac{1}{4}$	44.00	106	6	100	15	5	8 $\frac{1}{4}$	42.00
34	4	30	5 $\frac{3}{4}$	5	6 $\frac{3}{4}$	13.50	108	8	100	19 $\frac{1}{4}$	5	8 $\frac{1}{4}$	54.00
35	4	30	10 $\frac{1}{4}$	3	6 $\frac{3}{4}$	13.50	1010	10	100	24 $\frac{1}{2}$	5	8 $\frac{1}{4}$	66.00
36	6	30	8 $\frac{1}{8}$	5	6 $\frac{3}{4}$	18.50	1012	12	100	29 $\frac{1}{4}$	5	8 $\frac{1}{4}$	78.00
37	6	30	14 $\frac{7}{8}$	3	6 $\frac{3}{4}$	18.50	1018	18	100	43 $\frac{1}{2}$	5	8 $\frac{1}{2}$	118.00
38	8	30	10 $\frac{1}{2}$	5	6 $\frac{3}{4}$	23.50							
310	10	30	12 $\frac{7}{8}$	5	6 $\frac{3}{4}$	28.50	134	4	130	11 $\frac{1}{2}$	5 $\frac{3}{4}$	9	38.00
312	12	30	15 $\frac{1}{4}$	5	6 $\frac{3}{4}$	33.50	136	6	130	16 $\frac{3}{4}$	5 $\frac{3}{4}$	9	54.00
44	4	40	6 $\frac{3}{4}$	5 $\frac{3}{4}$	8 $\frac{1}{4}$	14.00	138	8	130	22	5 $\frac{3}{4}$	9	70.00
45	4	40	11 $\frac{1}{8}$	3 $\frac{3}{8}$	8 $\frac{1}{4}$	14.00	1310	10	130	27 $\frac{1}{4}$	5 $\frac{3}{4}$	9	86.00
46	6	40	8 $\frac{3}{4}$	5 $\frac{3}{4}$	8 $\frac{1}{4}$	20.00	1312	12	130	32 $\frac{1}{2}$	5 $\frac{3}{4}$	9	102.00
47	6	40	16 $\frac{3}{4}$	3 $\frac{3}{8}$	8 $\frac{1}{4}$	20.00	1318	18	130	48 $\frac{1}{4}$	5 $\frac{3}{4}$	9	50.00
48	8	40	10 $\frac{3}{4}$	5 $\frac{3}{4}$	8 $\frac{1}{4}$	26.00							
410	10	40	12 $\frac{3}{4}$	5 $\frac{3}{4}$	8 $\frac{1}{4}$	32.00							
412	12	40	15	5 $\frac{3}{4}$	8 $\frac{1}{4}$	38.00							

DURO Batteries in wood cases are known by the suffix "A." Thus 46A would mean No. 46 in hardwood case instead of copper.

For wood cases add  $\frac{5}{8}$ " to each measurement.

Prices given are for batteries in Polished Copper Cases.

When wood cases are desired, deduct \$1.00 from list prices on all batteries selling for less than \$25.00. On batteries above \$25.00 deduct \$1.50. Above \$50.00 deduct \$2.00.

Measurements are taken "over all." Heights given are to top of terminals.

All connections and vents are on top of case.

These batteries are absolutely guaranteed not to stop, leak, nor spill if used per directions furnished with each battery.

The only attention ever necessary to give them is to add a few drops of plain water when recharging. When battery is put in use take a small syringe and remove all excess liquid from vents. When in use it is absolutely dry.

For jump spark use 6 Volts. For French coils 4 Volts are sufficient. Make and break ignition requires 8 to 10 Volts.

Batteries are shipped fully charged ready for use.

Remember that Volts simply mean pressure. Ampere hours mean capacity. For greater mileage per charge get a battery with a larger ampere hour capacity, not of higher voltage than the one you are now using.

The standard battery for jump spark ignition is our No. 76, 6 Volt 70 ampere hour capacity. The other sizes are mainly used where No. 76 will not go in present battery box.



## Storage Battery Lamps

## Searchlights



No.		Each.
19.	5 3/4" opening, 9 1/2" long	\$20.00
20.	8 1/2" " 10 1/2" "	25.00
21.	9 1/2" " 11 1/2" "	35.00
22.	11 1/2" " 13" "	45.00
23.	14" " 15" "	55.00

Above prices include launch bracket or auto dash bracket.

## Side Lamps



No.		Per pair.
40.	4" opening, 5" long, polished brass	\$14.00
40A.	4" " 5" " copper fronts	14.50
41.	5" " 6 3/4" " polished brass	20.00
41A.	5" " 6 3/4" " copper fronts	20.50
42.	8" " 10" " polished brass	30.00
42A.	8" " 10" " copper fronts	31.00

## Dash Lamps



No.		Each.
110.	One piece solid spun brass shell. 2 1/2" opening, 3" long over all. Wired and ready for use	\$4.50
112.	Same, only larger. 3 3/4" opening, 4 1/4" long over all. Wired and ready for use	6.00

## Rear Lamps



Solid Brass

No.		Each.
50.	Rounded glass either red, white or green. 2 1/2" opening, 2 1/4" depth, 3 3/4" width base	\$3.50
51.	Same only with DURO "2 mile" semaphore lense. 2 1/2" opening, 2 1/4" depth, 3 3/4" width base. Either red, white or green	4.00

## Gauge Lamps



No.		Each.
80.	Open Style. Lights two or more gauges at once. 2 1/2" opening, 2 1/2" length. 1 5/8" base. Wired ready for use	\$2.50



No.		Each.
81.	Close Style. To concentrate light on one gauge. 2 1/2" drop. 3 1/2" length. 1 3/8" base. Wired ready for use	\$2.50



## Storage Battery Lamps



Electric Front Lamp

- |  |                 |
|--|-----------------|
| No. 98, Solid brass, complete, ready for use, 8 1/2" opening, 10 3/4" long, 7 3/4" bracket width | Pair<br>\$35.00 |
| No. 98A, same only equipped with condensing parabolic lenses—French type                         | 45.00           |
| No. 99, "Greatest light in the world," 10 1/2" opening, 10 1/4" long, 8 3/4" bracket width       | 40.00           |
| No. 99A, same only equipped with French condensing parabolic lenses                              | 50.00           |

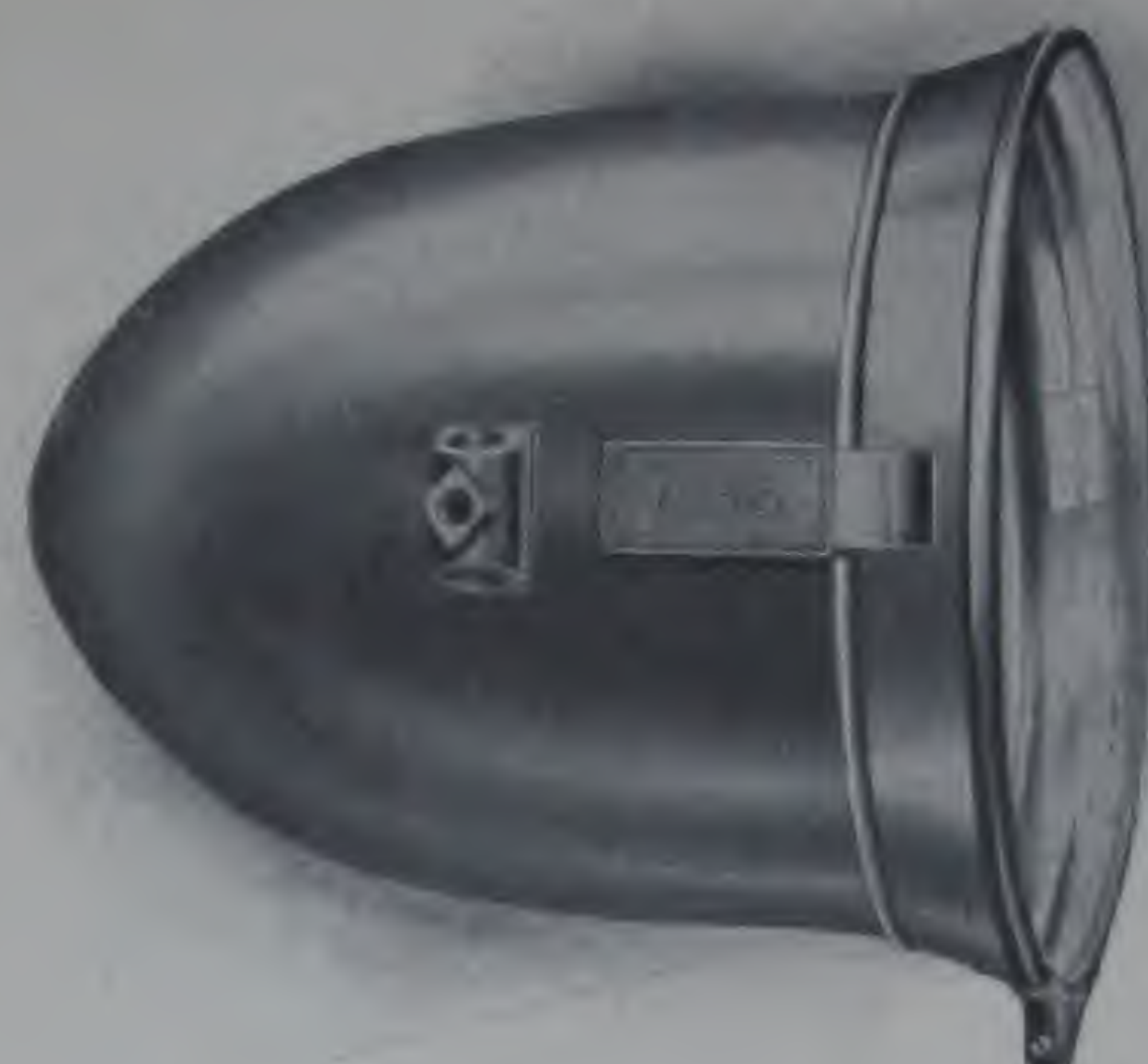
These prices include wire, bulbs, switches, etc.

Lamps are furnished with connectors which allow them to be easily removed for polishing, etc.

We recommend 12 Volts for these lamps. They will not give satisfaction on less than 10 Volts.

Lamps draw 2 amperes per pair.

Extra bulbs of any voltage . . . . . 25c each



Electric Front Lamp

Acorn Type

- |  |                 |
|--|-----------------|
| No. 90, one piece solid spun brass shell. All brass. 8" opening, 9" long, 7 3/4" width bracket | Pair<br>\$30.00 |
| No. 90A, same only with copper fronts  | 31.00           |
| No. 91, all brass, 9 1/2" opening, 11" long, 8 1/4" width bracket                              | 40.00           |
| No. 91A, same as No. 90 only with copper fronts  | 41.00           |

These prices include wire, bulbs, etc. Ready for use.

Lamps are furnished with connectors which allow them to be easily removed for polishing, etc.

We recommend 12 Volts for these lamps. Furnished in any voltage up to 20. Will not give satisfaction on less than 10 Volts. Lamps draw 1 ampere each.

Extra bulbs of any voltage . . . . . 25c each

## Electric Dome Lamps



- |   |                |
|---|----------------|
| No. 65, small style, 2 1/2" deep, 2 1/2" opening, 3 3/4" diameter base. Solid brass                 | Each<br>\$3.50 |
| No. 65A, same only silver plated  | 4.00           |
| No. 66, large style, 2 1/2" deep, 4" opening, 5 1/2" diameter base                                  | 4.50           |
| No. 66A, same, silver plated  | 5.00           |
| No. 67, same as No. 66 only equipped with a throw switch in base                                    | 5.50           |
| No. 67 A, same only silver plated   | 6.00           |
| No. 69, Round ball type, 3" diameter of globe, 3 1/2" diameter of base, 3 1/4" depth. Frosted glass | 2.50           |
| No. 69A, same only silver plated  | 3.00           |
| Extra bulbs of any voltage  | .25            |
| Mahogany rosettes for use as base for any of above lamps  | .75            |



- |   |                |
|---|----------------|
| No. 60, small size, 2 1/4" depth, 3 3/4" diameter base, 2 3/4" opening. Solid brass | Each<br>\$4.00 |
| No. 60A, same, silver plated  | 4.50           |
| No. 61, large size, 2 1/4" depth, 5 1/4" diameter base, 4" opening. Solid brass     | 5.00           |
| No. 61A, same only silver plated  | 5.50           |
| No. 62, same as No. 61 only with throw switch in base of lamp                       | 6.00           |
| No. 62A, same only silver plated  | 6.50           |

Prices are complete with wire, bulbs, etc., ready for use.

We recommend 6 or 12 Volts. Can be furnished for any voltage up to 18. Bulbs draw from .6 to 1 ampere, depending on amount of light wished.

Extra bulbs . . . . . 25c each



## Dry Battery Containing Cases



No. 641



No. 682

No.		List.	No.		List.
641	Unfinished Poplar . . . .	\$0.60	662	Mahogany Stain . . . .	\$0.70
641	Varnished " . . . .	.66	662	Varnished Oak . . . .	1.04
641	Mahogany Stain . . . .	.66	682	Unfinished Poplar . . . .	.68
641	Varnished Oak . . . .	1.00	682	Varnished " . . . .	.74
661	Unfinished Poplar . . . .	.66	682	Mahogany Stain . . . .	.74
661	Varnished Poplar . . . .	.74	682	Varnished Oak . . . .	1.10
661	Mahogany Stain . . . .	.74	6122	Unfinished Poplar . . . .	.72
661	Varnished Oak . . . .	1.10	6122	Varnished " . . . .	.80
662	Unfinished Poplar . . . .	.64	6122	Mahogany Stain . . . .	.80
662	Varnished " . . . .	.70	6122	Varnished Oak . . . .	1.30

---

No. 641	Case will contain four cells in one row
" 661	" " " six " " " "
" 662	" " " six " " two rows
" 682	" " " eight " " " "
" 6122	" " " twelve " " " "

---

Containing Cases complete with batteries wired in series and fitted with terminals.

No. 641	Add to prices of Containing Case	\$1.76
" 661	" " " " " "	2.25
" 662	" " " " " "	2.25
" 682	" " " " " "	2.75
" 6122	" " " " " "	3.25

These Containing Cases are made from selected  $\frac{3}{8}$  inch Oak and Poplar, and are lock cornered and well made.  
The above sizes are for No. 6 Columbia or other dry batteries of equal size.



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